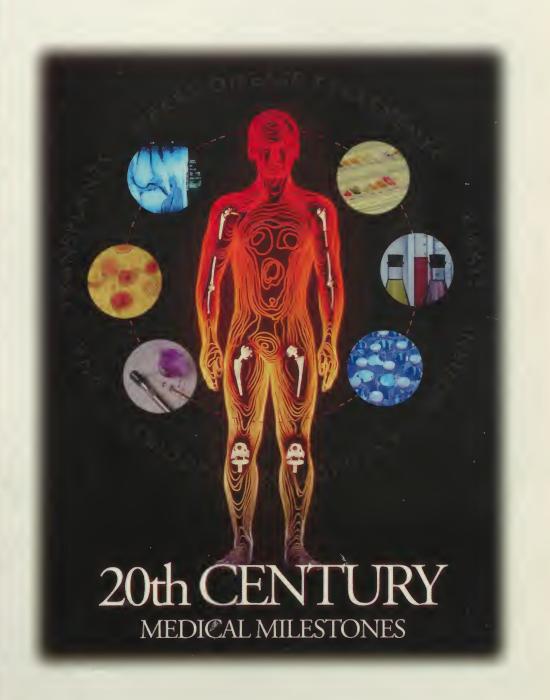
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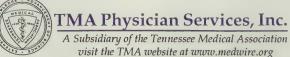
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Editor

John B. Thomison, MD

Assistant Editor

Robert W. Ikard, MD

Managing Editor Jean Wishnick

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Sr. V.P.—Communications
Russ Miller

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Jean Wishnick

Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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James Chris Fleming, MD

Rx for Health Care: Backlash Continues Against Managed Care

All of the physicians reading this article are well aware of the many problems associated with managed care. You, most of all, understand how managed care has impacted the care of your individual patient, your practice as a whole, and on a broader spectrum, the health care delivered throughout your cities, your state, and your nation. All of us agree that the managed care system needs reform.

I am encouraged that reform is on its way. A quick look through the *AMA News* relays the following headlines: "Hard-hitting lawyers launch new assault on managed care... [attorneys] are aiming at HMO's cost containment strategies. This could be the industries biggest threat yet." How about this headline? "Health plan liability erupts at center of House Battle"? Now, we are beginning to see articles in the non-medical press as well and furthermore, to see them on a routine basis.

The Commercial Appeal carried an article entitled: "California patients win right to sue HMO." This article outlined a new piece of legislation in California which will allow "consumers [to] sue if they are substantially harmed by a health insurer's decision to delay, deny, or alter necessary treatment." Let's hope this California trend sweeps through the country quickly. And the news flash at press deadline of United Healthcare's announcement that it will now go back to the policy of "letting the doctor decide" is encouraging. I would like to be more enthusiastic but we all know the "devil is in the details." Also, with very little fanfare, a federal court in Nashville has signed off on a consent order in the *Grier v. Wadley* class action case requiring the State to turn over medical necessity decisions to treating physicians.

Both the MCOs and the hospital associations view this consent decree as likely to cost the State untold hundreds of millions of dollars—since patients have new rights, including the right to continued treatment while their appeals are pending. The devilish detail here is that the State, perhaps unconstitutionally, entered the decree without notice and an opportunity to object by the MCOs or other "providers" who might be affected. Once again, since the State bears no financial risk in TennCare, it suffers no consequences for its own management decisions.

Why did I buy my first copy of the *Ladies Home Journal* this past October? The headline on the cover in **bold black print** read "How To Win A Fight With Your HMO." I couldn't pass it by. I made certain the Memphis and Shelby County Medical Society had a copy, as well as the TMA. We will be sending copies to our legislators with letters that essentially say this is no longer an issue of interest to physicians only. Now consumers are also banding together in the fight against managed care. They too recognize the failings inherent within the managed care system and are now calling for reform.

In early October, the House of Representatives passed the Norwood-Dingell Patient Bill of Rights. This is a very important piece of patient care legislation and organized medicine is delighted that it passed the House. Next it goes to the Senate, so please take the time to contact our Senators regarding your support of this bill. Our own Senator from Tennessee, Dr. Bill Frist, is a member of the conference committee which will receive this bill in the first step of its journey through the Senate. His e-mail address is: senator_frist@frist.senate.gov.

I just attended a medical meeting at which a physician spoke of the importance of maintaining a positive attitude and a positive outlook. I choose to take a positive approach to the practice of medicine. I believe that physicians and patients together can and will fuel this much needed reform in health care. Therefore, I believe the pendulum of managed care will swing back to a much more patient-sensitive area, one that will put physicians instead of the insurers back in charge of patient care.

James C Flenrer 11)

Editorials



John B. Thomison, MD

Home

There's an old saying—maybe a song even—that home is where the heart is. Well, that depends. Some might say that home is where the heart was. That's if they're speaking of their place of birth. Once that was where most folks spent their entire lives. Not anymore. Once it was hard to escape from it even if one wanted to. Now it is easier, but only sometimes, because that also depends. Someone once observed that everything depends, and I guess it does. This piece depends first on definitions.

I have been watching the PBS documentary on New York. I had thought maybe I should specify New York *City*, but the documentary didn't, and in fact not only New Yorkers, but the entire world as well, would assume that had I not meant the city, I'd have said "New York State." To everybody, New York is the city. Something over a hundred years ago a quoted New Yorker wrote nostalgically that anyone born more than 40 years earlier would be hard put to identify any structure that he remembered from his childhood. Nevertheless, had someone from elsewhere asked him, "Where's your home," without doubt he would have said, New York.

As I watched the huddled masses yearning to breathe free pouring into New York by the thousands, I got to thinking, seeing the conditions that faced them, that for most of them their move had been a matter of jumping out of the frying pan into, if not the fire, at least another equally hot frying pan. And it seems to have been ever thus. The only way that such moving has really changed is that mobility has become freer—or at least faster. Simply put, history is just one long, often forced march of humanity to see if the grass isn't in fact greener just over the hill. Certainly it was not uniformly so in New York. On the other hand, the way was open for finding greener pastures as almost nowhere else on the planet.

This is about New York only in that it has been, and even still is, home to a huge segment of the population of this country, and not such a tiny portion of those inhabiting this entire planet. I have had a sort of love-hate relationship with New York over the years, which it is tempting to go into here, but I won't. New York is a great place for me to visit if I have a specific agenda in mind and have to stay only a few days. There are millions of our citizens, though, who, despite its warts, would not even consider living anywhere else. As it turns out, no matter where they are on the face of the globe, there are those who live there because they like it there, or because it has never occurred to them to live somewhere else, or perhaps because if it has, the prospect of relocating holds incomparable terrors. On the other side are those who, likewise wherever they are, are yearning to breathe free, and try it. In the end, for a few the sky is the limit, for a few the bottom falls out, and most just continue living somewhere else in the same quiet desperation. They are the ones who are likely to continue dreaming of the auld sod.

But the auld sod isn't there anymore. No matter what you're thinking of, or where, it isn't there. The dirt might be, but chances are good it's been scalped and paved. Buildings have been either replaced or "renovated." I grew up on Lookout Mountain, Tennessee. I left there in 1938 at the age of 17. Even though Lookout Mountain remains a physical presence above Chattanooga, and the house I grew up in is still standing, "my" Lookout Mountain no longer exists. My heart might still be there if it did, but it doesn't. At the same time, neither does the Nashville that I came to when I left home. It was gone even before I returned to it in 1949 after an absence of five years, and soon that was gone as well. Only one other house had been completed on our street when my wife and I moved with three of our four children into the one we built there in

1956. There were three lots of woods behind us for several more years. Now we are one of four families remaining of those that had filled our block within five years.

The years slip by, and the centuries, and now another millennium is about to fade into the past. Or is it? There are all sorts of dire predictions as to what will happen with the exodus of the Second Millennium a few days before or after you read this. In the unlikely event that God is at all interested in all this, other than perhaps as a source of amusement, and intends to use the end of this millennium to reorder or end His Creation, this is not when He will do it. He will not do it this year, even if He intends to do so with that event, for the simple reason that the millennium does not end for another year—at midnight of December 31, 2000. The other hooker in all this is that the year popularly accepted as being the birth date of Jesus is likely off as much as several years. So if God is going to use that sort of a human timetable: forget Biblical prognostication. In the last analysis it is unscriptural, since if you are using scripture as a basis, Jesus said no man knows the day nor the hour, not even the Son (Jesus). So how do you?

But then there is the imputed Y2K problem with computers. Not satisfied with the present situation's inherent possibilities for panic, the media are exercising their usual gross irresponsibility to make sure all suggestible individuals are reduced to the status of craven wretches. This time the specific culprit is NBC, which just six weeks before the widely held witching hour when civilization is expected to crumble with the widespread death of computers, is releasing one of its disaster films, this one about the horrendous effects of Y2K. Alan Greenspan, stating the expectations of the Federal Reserve Board as to what will happen at midnight on Dec. 31, said not much out of the ordinary would. His concern, he said, was not with the computers or any of the financial institutions, including the infrastructure on which they—all of us—depend. Rather, he said, his concern is the reaction of the people. There will be a banking crisis, he said, only if people panic and make one. NBC is doing its best to see that a panic—among other things—happens, their model a nuclear crisis.

Home is where the heart is, and the heart is a place where people most important to it live. In short, those among the nearest and dearest. There are as well degrees of importance, from family to friends, and sometimes only acquaintances. Those dear people become scattered over time, their numbers added to over the years, and finally increasingly depleted at an alarming though not unexpected rate. Depending on the context of the question, "Where is your home," home can mean a variety of places: America, the United States, Tennessee, Nashville. Ultimately, though, home is a specific address. Recognizing that there are within the realm of possibility, no matter how remote, all sorts of valid reasons why it should not happen this way, I expect on January 1, in the year of Our Lord 2000, to be at my home, which is where it has been for the past 43 years, on Darden Place in Nashville, and in a broader sense for more than 78 years, in the State of Tennessee, United States of America, on the North American Continent, Planet Earth of our Solar System, the Universe, in the mind of God.

Making allowances for the vagaries brought about by the caprice of Nature and their unfore-seen consequences, I expect all those dear to my heart, those close by and those scattered far and wide, to be where they had planned to be. I also trust they will be doing the things they had hoped and planned to do, provided those plans did not include cringing in a hole in some forsaken place, terrified, expecting the worst. I wish for all of those dear to my heart, as well as all of those dear to the heart of God, which includes all of you, and even all those who do not believe He exists, all the best for the year 2000, and I wish for that best to extend for all of them on into the Third Millennium when it finally arrives a year from now, for as long as it is given them to experience it.

Happy Y2K to all of you.

A Poem

Blue Haze

Yasmine Subhi Ali

"Wenn ihr's nicht fühlt, ihr werdet's nicht erjagen." (If you don't feel it, you'll never get it.)

—Johann Wolfgang van Goëthe Faust

CVA.

A mere sequence of letters to the Unsuspecting medical student. You come to the ambulatory care clinic, But you are no longer ambulatory.

I know you;

We met a year before this "accident."
Lying on an unforgiving examination table
You immediately take my hand,
My inexperienced, student hand,
And press it to your chest.
We remain that way
You and I
Hands united
Holding on as though for dear life.
Dear, dear life.

I look down at your dehydrated face
Glazed blue eyes
Meet mine
Faint trace of a lop-sided grin
I wink.
The right corner of your mouth inches upward
Even farther.

The attending asks about
The care you are receiving at home
Your heart pounds beneath my hand
"Why must they boss me so?"
Plaintive cry; incomprehensible loss.
You used to be the boss, and now...
Your eyes well up with tears—
As do mine.
Your heart pounds beneath my hand
And now two hands hold yours.

A bleary-eyed medical student
Waits for Morpheus's blessing.
Did you get what you wanted out of life?
Does anybody ever?
Never wanted to let go...
These hands can never be quite my own again.

Sleep slips in On the shadow of a Glazed blue haze.

Ms. Ali is a Vanderbilt University School of Medicine medical student, class of 2001.

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TennCare Looking for Blame in All the Wrong Places

Douglas J. Springer, MD

Legislators in Nashville are currently looking for someone to blame for Tennessee's TennCare program's troubles: If BlueCross BlueShield drops out of the program, then it is their fault; if the doctors drop out, then it is obviously their fault; and if the hospitals drop out of the program, then they are the ones to blame.

TennCare replaced Tennessee's Medicaid program in 1994. The state's health insurance program for the underinsured and uninsured was taken over by the state, including all of the federal grant money to run the TennCare program during Gov. McWherter's final year in Nashville. Its budget includes \$4.3 billion, of which \$1.4 billion comes from the state and \$2.9 billion comes from matching federal funds. TennCare's budget represents 26% of the state of Tennessee's budget.

TennCare has had seven directors in five years and the acting director now is John Tighe, who is currently searching for Director No. 8. There have been nine managed care health plans that serve TennCare members, and they lost a combined \$6.6 million in the second quarter of 1999. In the past year, the Tennessee hospital system has lost \$454 million treating TennCare patients. Currently, 1.4 million people are being serviced by TennCare, including the 900,000 who would have been eligible for Medicaid and 500,000 people who are uninsured or uninsurable who have been added to the enrollment list in the past five years. One in four Tennesseans depends on TennCare for medical help. That's right—one-fourth of Tennessee is on TennCare!

The way the TennCare system works is that the TennCare budget pays the managed care organizations (MCOs) and these companies in turn pay the doctors and hospitals. People that are actually doing the work—that being the hospitals and doctors—receive an average of just 34 cents out of every dollar for treating TennCare patients. That is, if a service has been provided for one dollar, TennCare pays only one-third of the bill . . . provided you can wade through all of the administrative barriers the MCOs use to deny medical care.

The average overhead for hospitals and doctor's offices exceeds what is sent to them for reimbursement by a consid-

erable margin. The average overhead in a physician's office is 40% to 60%. The overhead in hospital settings is incredibly high at greater than 95%. Thus, these entities are not only providing benevolent care in most instances, but they are paying to serve the TennCare population. This comes at a time when no other payer is able or willing to offer support. Therefore, it is not surprising that all the major components that treat the program's patients are losing money and threatening to withdraw their support. It is because of this situation that the federal government and the state of Tennessee are now anxious about their poorly conceived program.

The policymakers are now frantic to find ways to place a quick fix on the program. John Ferguson, the top official overseeing TennCare, is now calling for a task force to somehow come to grips with the problems being presented at this time. He feels it is basically a good program, and that he just needs to find the right administrator for the program. He is wrong.

The history of TennCare has been a history of an organization in turmoil from the first day it was conceived. The program was put into place without consulting the physicians of Tennessee and certainly without consulting the Tennessee Medical Association. TennCare's initial idea was to take the 900,000 people who were served by Medicaid and to create a system that would allow access to medical care. The idea was to change behavior such that those persons served by Tenn-Care would now have a primary care physician and someone to rely upon to direct their medical care. So what happened?

The state allowed several large health care plans to develop start-up programs for TennCare. TennCare patients were allowed to sign up for these programs, and then these programs assigned primary care physicians. The problem is that some of these primary care physicians were in other cities that were inaccessible. The trouble is, they were offering to pay the primary care physicians so little that only small lists were generated. These managed care organizations could move into an area and offer their services with incomplete lists of primary care physicians that was insufficient in quantity to serve the TennCare population, and without adequate medical specialty coverage. Instead of not allowing this situation, TennCare allowed these MCOs to enter these markets. Because of this, the TennCare patients still relied upon the emergency room for much of their care—which as everyone knows, is a more expensive element of medical care.

Reprinted with permission from Kingsport Times-News.

Dr. Springer is on the executive committee of the Sullivan County Medical Society and a member of the Government Relations Committee of the Tennessee Medical Association.

The confusing and different formularies (drugs that are approved by MCOs), as well as the long waits for getting approval for medical treatments, simply add to the frustration of hospitals and physicians. Office staff has to waste needless hours on the phone instead of performing the jobs they were assigned and hired to perform—which increases overhead expenses.

The state of Tennessee then decided that it would expand the role of TennCare. Not only were they having trouble paying for 900,000 people, they let another 500,000 enter the melting pot. It doesn't make economic sense and it doesn't take a long thought process to figure out that if you can't pay for 900,000 people, you won't be able to pay for 1.4 million people in the TennCare system. Fortunately, not all these people had to be cared for since a state audit this summer found out that TennCare spent \$6 million covering 14,000 people on its rolls that had died (although the program later recovered this money). That's right—TennCare paid MCOs to look after dead people!

TennCare's needs are multiple and the solutions will have to be created at multiple levels. TennCare will have to hire a permanent director that can be a permanent part of the TennCare system, rather than an executive that is lost or is forced to withdraw every 6 to 12 months. In addition, this director is going to have to have a close working relationship with the Tennessee Medical Association in order to identify problem areas and work out solutions. The TennCare program may have to draft different rules concerning who is eligible for TennCare. Trimming the members back to its initial planned 900,000 may be at least a beginning solution.

Tennessee has absorbed the medical care costs of many of the surrounding states because people have moved over the state lines in order to secure health insurance through TennCare. Perhaps a program that has a waiting period for Tennessee residency would be appropriate.

Recruiting hospitals and providers into the system can only be done with decent reimbursement. Providing service for less than overhead costs is not what the providers and hospitals can continue to do in Tennessee. A negative cash flow such as this will drive good hospitals and providers either out of business or away from Tennessee. It could quite literally ruin the rural health system if these physicians leave their communities.

Eliminating the paperwork by having a single formulary would be appropriate. Penalizing persons for overuse of the emergency room is a delicate issue, but it needs to be addressed. There was a time early on in TennCare where insurance policies and other benefits were offered by the MCOs in order to recruit TennCare patients to the MCOs because of the amount of money these MCOs could make from TennCare. Using the budget of MCOs wisely instead of creating rich executives out of the TennCare budget and having large

overheads is not what TennCare needs as part of its solution. A very strict monitoring of MCO's budgets is going to be necessary.

Many other ideas need to be incorporated into the system in order to correct this travesty. The major groups that keep TennCare running, including the MCOs, hospitals, and doctors, as well as the Tennessee Medical Association and the federal government, need to be at the table to create a successful program. A broad sampling of businesses and individuals could provide input. This process would certainly be preferable to what has occurred until now, which has involved the state government dictating the process without the involvement of anyone.

The government of Tennessee and its legislators have to look no further than themselves to blame for TennCare's financial troubles. They were the ones who did not monitor the MCOs. They were the ones who have nearly ruined some of the best hospitals that have emerged in the nation, which happen to be located in Tennessee as large referral centers. Lack of government oversight combined with the MCOs and poor planning in the last five years have managed to sink this system.

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Medicare Getting Some Much-Needed Attention this Election Year

Brenda Williams

eading down the road toward election year 2000, it seems everyone has jumped on the Medicare bandwagon, with much of the focus on the rising cost of prescription drugs.

The American Medical Association is "exceedingly pleased" with the attention, according to AMA Chairman of the Board Dr. Ted Lewers. "We started this process a long time ago when we published our first document on transforming Medicare," he says. "What makes us so happy is that everyone's beginning to address it. Out of all the plans we're looking at, hopefully there will come a plan that will enact meaningful reform."

The problem is a perpetual one: Medicare is on a fast road to insolvency, with bankruptcy forecast by 2015; the number of Americans served by the program is expected to balloon from 38 million to 77 million in the next ten years. Pharmaceuticals comprise a fast-growing expense, and it is estimated that up to 65% of Medicare beneficiaries must pay out-of-pocket for outpatient drugs because they have inadequate Medicare or private coverage and are not covered by Medicaid. In 2000, those covered by Medicare HMO plans will lose their zero co-payment for prescription drugs and nearly one-third of them will be limited to drug expenses of \$500 or less.

The Plans

President Clinton, perhaps intent on leaving a lasting legacy in office, has floated some proposals to modernize, strengthen, and address coverage gaps in Medicare. In support of that plan, Vice-President Gore appeared before an AMA meeting and urged the attending doctor/lobbyists to press Congress in favor of the administration's proposal to use surplus federal funds to shore up the program and add a Medicare prescription drug benefit. "Tell them it's doctor's orders," Gore pleaded.

Wearing his candidate's hat, Gore also pledges to work to reduce the rising cost of prescription medications, especially for Medicare recipients. He pledges to enact legislation to further open the marketplace to generic drugs and to prevent collusion by big-name companies aiming to keep more affordable drugs off the shelves. "The drug companies are trying to pull the wool over the eyes of Congress and tag the American people with more of these absurdly high pharmaceutical prices," says the presidential hopeful. "This is an unacceptable situation in America."

In Congress, the U.S. House in November voted in favor of the "Medicare Refinements Act," which fixes errors in physician reimbursement formulas that unintentionally led to lost funding in the wake of the Balanced Budget Act of 1997. The AMA cheered its passage, after testifying in favor of the correctional measure in subcommittee hearings. Senate action on the bill is still pending.

Meantime, Medicare reform plans are forthcoming; first, from Senator John Breaux (D-LA), a "premium support" package that requires both traditional Medicare and Medicare HMOs to include a prescription drug option; then from Senators Breaux and Bill Frist (R-TN), a newer Medicare restructuring plan that includes full prescription drug coverage.

The Problems

The AMA is sizing up proposals in light of its own resolution calling for a wholesale restructuring, and top officials say the ideas are not without some problems. "We are concerned that many of the plans that you're reading about don't go far enough," says Lewers. "They're sort of touching the surface—save a little money here, get a little money for the doctors there—we cannot do that. Medicare has to be restructured." Lewers says working Americans, mostly between ages 30 and 55, bear the brunt of Medicare costs; it is a funding source that he says will be tapped out unless the entire program is overhauled. AMA policy, as stated in a Board of Trustees report, favors shifting Medicare funding "from the current tax-financed pay-as-you-go system to a system of individually owned private savings accumulated and dedicated to funding post-retirement medical care."

Frist says that is exactly the problem with Clinton's Medicare proposal. "Medicare has performed well in the past, but it's time for it to be updated—and I don't mean just a new coat of paint to make it look good," Frist says. "Medicare today is too fragmented, too rigid and too unresponsive to our seniors. Throwing more taxpayer money into an

Brenda Williams is a freelance writer and owner of Public i Media in Nashville. unreformed Medicare program is not the best way to meet the needs of patients."

Congressman Van Hilleary (R-TN) also finds fault with the funding mechanism of Clinton's plan. "I have the same problem using a projected surplus to pay for prescription drugs as I do using it to pay for tax cuts—it's hard to predict. You can't tell what the surplus is going to be in the next ten months, much less the next ten years." The fourth-district representative says the concept of helping seniors

WHAT'S THE THINKING ON MEDICARE?

Various groups, candidates and legislators have weighed in on Medicare in this election year. We offer a thumbnail sketch of some of the ideas that are out there:

AMA—Advocates replacing the current Medicare program with a self-funded private sector approach to financing, including defined help from the federal government in purchasing private health coverage by Medicare beneficiaries. Also urges that prescription drug problems be solved in the broader context of Medicare reform.

President Clinton—Vowed in his State of the Union address to add prescription drug benefits to Medicare and wants to dedicate 15% of federal government surplus monies to the Medicare trust fund.

Vice-President Al Gore—Says as President, he would favor using the surplus to keep Medicare solvent. He also proposes a new Medicare prescription drug benefit that allows up to \$5,000 per year in spending for all beneficiaries, and eliminates cost-sharing on prescriptions for Medicare clients who are 150% below poverty.

Senators Bill Frist and John Breaux—Their "Medicare Preservation and Improvement Act of 1999" seeks to model the Federal Employees Health Benefits program that currently serves federal workers, including Congress members. It would guarantee seniors all current Medicare benefits and full prescription drug coverage; offers different plan options, with all plans including drug coverage. Low-income beneficiaries would pay no premium.

AARP—Wants to see Medicare strengthened, including the addition of prescription drug benefits; wants to make sure the fee-for-service program remains a strong and vital option for older Americans. Representatives say there should be full discussion before changes are made.

pay for their medication is a worthy goal, but he cautions fellow lawmakers to go beyond election-year politics to find a solution that really works.

Back home in Selmer, Tennessee, out of the glare of the legislative spotlight, is a family practitioner who works every day with Medicare patients. Dr. Jim King with Prime Care of West Tennessee sees mostly older patients, retired or living on a fixed income, who spend more than their monthly check on medications. This TMA-member sees rising pharmaceutical costs as a problem, but doesn't want to see Medicare in the pharmacy business. He argues that Medicaid is already in place to help the poor. "I don't want to pay out of my own taxes so that Ronald Reagan can get his drugs paid for, or Rockefeller. Just being a Medicare patient is not a legitimate reason why our taxes should pay for drugs," King says. "Yes, there are people out there who have \$500 drug bills, when they only collect \$385 a month. We need to make sure there's some kind of means testing, to make sure that they have the need, that they do need some help in paying for their medication."

King also favors overall Medicare reform, but says the changes need to be well thought-out. "Last year, we were arguing that it was going to go under in ten years. All of a sudden we had this increased revenue; now we're going to supply drugs to a group of people who may not need it." King says a cautious approach is needed, especially when it comes to expanding services.

The Solution

Lawmakers have the ultimate responsibility to fix the problem. Hilleary says he will study the various proposals and be ready to consider some action when the House reconvenes in February. He supports some assistance on prescription drugs but wants to see which plan "makes the most sense."

Frist says it is time to reform a system that is "as outdated as an Edsel," and pledges to seek bipartisan support in Congress, as well as work with beneficiary and industry groups and the Administration to build his proposal into a workable solution.

Senior Americans will ultimately have to live with the outcome. The AARP, representing over 560,000 older Tennesseans, has met with Frist about his plan. Brian McGuire, advocacy representative for the Tennessee state office, says they're still digesting the information. "We've begun a dialogue about some aspects of the bill; we plan to talk to other folks and to each other about it. We're really pleased that he has presented this to us as a document that's very much in progress. He has solicited our input and wants to know what we like about it, what we don't like about it and how to make it better." McGuire says Gore's plan hasn't filtered down from Washington yet, but says his office will be scrutinizing all of the proposals with equal interest.

Like the AMA, the AARP is pleased with the focus on Medicare. "Everybody was expecting, with the election coming up, that this would not be addressed, that we wouldn't start talking about it until after the election," says McGuire, adding the early discussion is a pleasant surprise. He does not expect to see legislation for a while, and does not want to. "The important thing is that nothing is fast-tracked here before the election. We believe there has to be substantial dialogue, there needs to be full discussion before any changes in this program that has worked so well for so long." The seniors group supports a stronger Medicare program, with the fee-for-service option left intact, and prescription drug benefits that limit out-ofpocket expenses for everyone. "We're going to be very involved in it at the national level," McGuire advises, adding that along with testimony in Washington, the AARP state office may join legislators to bring the issue home in the form of field hearings and town meetings across Tennessee.

While celebrating the revved-up awareness about Medicare's plight, the AMA is also reserving judgment on these election-year reform proposals. Lewers says, "It's very clearly said that in legisla-

"Medicare has performed well in the past, but it's time for it to be updated—and I don't mean just a new coat of paint to make it look good. Medicare today is too fragmented, too rigid and too unresponsive to our seniors. Throwing more taxpayer money into an unreformed Medicare program is not the best way to meet the needs of patients."

-U.S. Senator Bill Frist

"I think Medicare needs reform work, so I'm glad it's one of the top issues that the American public is interested in. Medicare does need work, but they do need to move slowly, especially in adding more services.

—Dr. Jim King Family Practitioner, Selmer

"The important thing is that nothing is fasttracked here before the election. We believe there has to be substantial dialogue, there needs to be full discussion before any changes in this program that has worked so well for so long."

—Brian McGuire
Advocacy Representative
AARP of Tennessee

"It's very clearly said that in legislation, the devil's in the details. We're happy to see that some of them are basically compatible with AMA policy, but until we see the language, our best answer is 'no comment.'"

—Dr. Ted Lewers AMA Board Chairman tion, the devil's in the details. We're happy to see that some of them are basically compatible with AMA policy, but until we see the language, our best answer is 'no comment.' We'll try to encourage them all to come in line with our policy statement."

In the meantime, the AMA has joined with about 50 health care, consumer, business, government, academic and industry groups calling for universal health care coverage. In mid-November, the coalition presented a framework for achieving the ultimate solution to the lack of adequate health care coverage for all Americans. The document was the result of the Health Sector Assembly, convened in October by the AMA and members of the pharmaceutical industry.

It remains to be seen how Medicare reform will shake out, especially during an election year. Lewers says the AMA will stay involved in the debate on behalf of its member physicians. "The AMA's on top of it," he affirms. "The momentum has changed; we along with our federation will be there, rep-

resenting physicians. We've told Congress and the people involved, we are not going away, we're staying in it so that quality health care is maintained in this country."

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

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Loss Prevention Case of the Month

Hematuria-A Sign Not To Be Ignored

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 67-year-old woman, a poorly controlled non-insulin dependent diabetic, had been seeing the same family physician for about three years for complaints related to what was thought to be allergic upper respiratory problems. On one occasion, about a year and a half after she started seeing the physician, she had a bout of severe pain in the right costovertebral angle, which radiated anteriorly and inferiorly into the region of the right groin and of the vagina. There was associated dysuria, pressure sensations in the lower abdomen, frequency of urination, and blood in the urine. At that time she had a fasting blood sugar of over 300 mg/ dl. The physical examination was said to be, "essentially negative." The diagnosis was diabetes mellitus and ureterolithiasis. Adjustments were made in her diabetes treatment, and she was

to return in two days for more blood studies. On her return, her blood sugar was found to be 248 mg/dl, and additional medication was prescribed for the diabetes.

A month later the patient had another bout of painful urination and frequency, the urine again showing blood and some WBCs. The diagnosis of urinary tract infection was made and treated with nitrofurantoin (Macrodantin) and phenazopyridine (Pyridium). There was no suggested follow-up visit but about three weeks later there was a call in for refills on the prescriptions she had been given for the urinary

tract infection and the diabetes. A week later her blood sugar was recorded at 127 mg/dl, and the "chem scan" was normal, with a cholesterol of 214 mg/dl. The blood sugar was checked again a month later and was found to be within the normal range.

It was eight months before she saw the doctor again, when she was again complaining of urinary "hesitancy" and blood in the urine. She had no abdominal pain, and again the physical examination was "unremarkable." The urine on that occasion showed 1+ for blood. She was again given Macrodantin and told to drink lots of water. Six months later she complained of "weakness." The physical examination was not revealing. Her chest, heart, and abdomen were examined and found to be "normal." The blood sugar was 183 mg/dl. Her diabetic medication was to be continued.

Six months later she was seen in the emergency department of the local hospital with "inability to void." She had abdominal and flank pain, and gave a history of having had similar symptoms before, which had responded to treatment. She was catheterized and the urine was found to be reddish, brown in color like "wine." Laboratory tests revealed blood sugar of 224 mg/dl, blood urea nitrogen 17 mg/dl, sodium 141 mEq/L, chloride 102 mEq/L, and bicarbonate 16 mEq/L. The urine was cultured and was negative at 48 hours. She was seen the same day in her doctors office with similar findings. She was given norfloxacin (Noroxin), another fluoroquinolone, and an appointment was made for a consultation with a urologist.

The report by the urologist to the primary care physician confirmed the history of blood in the urine intermittently for months, and she was scheduled for an intravenous pyelogram for the next day. This study revealed a 7-cm mass in the lower pole of the right kidney, "most likely a renal cell carcinoma." When a radical right nephrectomy was done, a "tumor thrombus" was found in the inferior vena cava with an associated "fair amount" of adenopathy. Pathology confirmed the diagnosis of renal cell carcinoma of the right kidney.

Four months after the operation a routine chest x-ray showed a density in the right lung field which review of the preoperative chest film did not show, leading to the resection of that portion of the lung. The pathologist did not believe this was a metastatic lesion from the kidney, but four

months later a larger chest lesion was removed by lobectomy, which did prove to be a metastatic lesion of the renal cell carcinoma. At the next checkup, the patient was found to be doing remarkably well and was asked to return in six months.

The patient died of her disease 15 months later.

A lawsuit was filed within the required time charging the family physician with negligence in (1) failing to do the appropriate tests to determine the source of the blood in her urine, (2) failure to refer the patient to a urologist in a timely manner, and (3) failure to diagnose and treat a malignancy of the kidney in a timely manner.

Loss Prevention Comments

The "failure" to diagnose or treat is an increasingly common allegation against physicians. Whereas 20 years ago a large percentage of the claims against doctors were related to invasive procedures done by surgeons, in recent years almost half of the claims filed are against the "medical specialists," and many have to do with the standard of care required in the assessment of a patient's complaints, the establishment of a diagnosis, and the determination of an appropriate treatment for the condition.

In this case the treating physician had his first chance to make an accurate diagnosis about four years before her death, when she presented with a history of ureteral colic, blood in the urine, and a blood sugar of over 300 mg/dl. At this time the diagnosis of diabetes was made and treatment for that condition was begun. Admittedly, the history of the typical pain of ureteral colic was most suggestive of a stone in the ureter, but there was no subsequent testing for the presence of a stone. Had an intravenous pyelogram been done at that time, it might have shown that the colic was due to a blood clot coming down the ureter from a lesion in the kidney. No treatment was documented for this episode. Thus, we are led to believe that it subsided spontaneously.

The doctor seemed to be drawn to her diabetes, which was appropriately treated at that time. There was another opportunity to investigate the urinary tract about two months later when blood was again found in the urine. On this occasion, the symptoms were treated with a nitrofurantoin. Again no follow-up visits were scheduled. These episodes of hematuria recurred, and were not associated with significant pain. After she was seen in the local hospital with the same complaints, for which the emergency room physician got a urine culture and basic blood studies, both were found to be negative, and an appointment was made for her to see a urologist. The diagnosis of renal carcinoma was made, and the kidney was removed, but metastases later developed in the lung, which led to two more operations for their removal. There followed a lot of pain, three major operations, and death after about a year of remission.

In the negotiations after the lawsuit was filed, there were no experts found who would support the care of this patient. An argument ensued as to whether or not earlier detection of the cancer would have led to a cure. While most experts believed that no treatment would have been effective, this argument does not play well in the courtroom. No expert would say that there was not a chance of a better outcome. Thus a large six-figure settlement was necessary because of the failure to make a timely diagnosis in this case, and the loss of that chance, as remote as it might be. Clearly, there should have been a search for the cause of the hematuria much earlier in this case.



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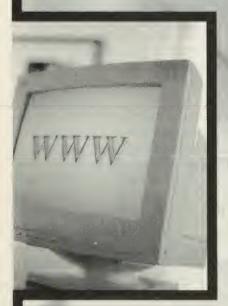
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FUTURE 50

Original Contribution

Unilateral Mandible Fracture With Bilateral TMJ Dislocation

Raymond R. Walker, MD; Pamela D. Connor, PhD

Introduction

Mandibular fractures often occur in the condylar region, and are hard to treat due to limited surgical access and difficulties in restoring function.1-2 Temporomandibular joint (TMJ) disorders often are complications of such fractures. TMJ dislocation occurs when the condylar head slips forward, causing the posterior articulating surface of the condyle to advance ahead of the articular eminence, and possibly becoming entrapped.3 Following dislocation, the ligaments around the joint often stretch, causing severe muscle spasms and joint pain.3

There is no standard evaluation and treatment method for acute dislocations of the TMJ, but the most effective course is immediate reduction. Some dislocations are not distinguishable radiographically, and chronic problems may not result until weeks later, rendering them difficult to manage. Dislocations are either acute (requiring immediate attention) or chronic persistent (persisting more than one month).⁴ Doctors often recommend conservative treatment. Closed reduction by maxillomandibular fixation (MMF) is common.¹ However, open reduction through various surgical methods has attracted interest in recent years, especially in cases of chronic dislocation, which are difficult to reduce manually.¹⁻⁴

It has been suggested that open reduction achieves more physiologic functioning of the TMJ and is a desirable alter-

ABSTRACT

Temporomandibular joint (TMJ) dislocation occurs when the condylar head slips forward causing the posterior articulating surface of the condyle to advance ahead of the articular eminence, possibly becoming entrapped. Following dislocation, the ligaments around the joint often stretch, causing severe muscle spasms and joint pain. There is no standard evaluation and treatment method for acute TMJ dislocation, but the most effective course is immediate reduction.

This paper presents a 42-year-old woman who sustained a unilateral mandible fracture with bilateral TMJ dislocation in an automobile crash. Although the fracture was apparent on plane film and panorex, the dislocation was not found until six weeks later, when the jaw was unwired. At that time, the dislocation was suspected because of decreased range of motion, but was not verified until an MRI was performed. The result was long-term therapy, eventual bilateral TMJ surgery, and chronic TMJ pain for the patient.

native to MMF.¹ Although opinions about indications for surgery differ,^{1,2,4} a degree of dislocation between 81% and 100% often necessitates a surgical procedure,² commonly osteotomy at the root of the zygomatic arch, plication of the joint capsule, or insertion of bone plates such as L-shaped stainless steel pins and silicone blocks to form a barrier in front of the condyle.^{3,4}

Case Report

A 42-year-old woman sustained a unilateral mandible fracture with bilateral TMJ dislocation in a car crash. The patient was rendered un-

conscious when the left temporal region of her head struck the driver's side of her vehicle at the top of the door. Simultaneously, a second passenger was thrown from the back seat, landing on the patient's neck and right shoulder, causing the airbag to deploy in the patient's face. The impact between the patient's head, the passenger's body, and the car body and airbag produced multiple injuries to the jaw. The articular disc and mandible were dislocated from the maxilla bilaterally, and the mandible sustained a linear fracture across the angle on the right side. The patient sustained both retrograde and anterograde amnesia, hyperextension injuries to both thumbs, and minor contusions.

Hospital Course

Initially, the patient complained of pain in the right mandible (Fig. 1), with significantly reduced range of motion. There was pain to her left temporal region, the left forearm, and both hands and thumbs, x-rays of which revealed no fractures. A panorex x-ray revealed a fracture across the right

From the Department of Family Medicine, University of Tennessee, Memphis.

Reprint requests to 1301 Primacy Pkwy., Memphis, TN 38119 (Dr. Walker).

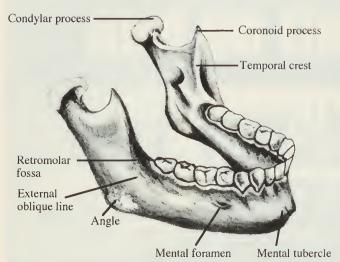


Figure 1. Mandibular osteology (oblique view).

mandible at the angle. A CT scan evaluated by Neurology showed no occult intracranial bleeding or severe concussion. She was admitted to Surgery for observation and consultation by Oral Surgery for the mandibular fracture.

Approximately 32 hours after the accident, under general anesthesia with nasotracheal intubation, arch bars were placed and wired on the patient's mandible and maxilla. The mandibular fracture was reapproximated, and the maxilla and mandible were secured by rubber tension bands. A nasal trumpet was inserted to protect the airway. She tolerated the surgery well, and was transferred to the recovery room in stable condition.

The arch bars were left in place for 5½ weeks after discharge. When the bands were cut and removed, the jaw opened minimally. When the arch bars were removed the next day using IV sedation, the mouth could be opened approximately 15 mm. The oral surgeon indicated this was normal postoperatively, and it should return to normal during the next week.

One week later, the opening distance had shown minimal enlargement. The surgeon indicated that this sometimes occurred, but he would like to obtain an MRI scan of the TMJ regions as a precaution to further evaluate the joints. The MRI showed bilateral dislocation of the mandible and the articular discs (Fig. 2), which was causing the decreased range of mandibular motion.

After a change in oral surgeons, the patient was treated conservatively. Initially, therapy using a bite splint and muscle relaxants was attempted, but this did not significantly increase travel of the mandible or mouth opening. Manual manipulation of the mandible with intravenous sedation was attempted after expanding the joint capsules with saline. Though this did slightly increase the range of motion, the manipulation did not realign the mandible disc.

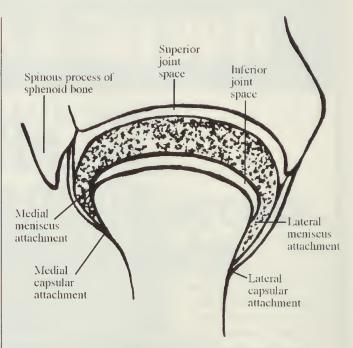


Figure 2. Temporomandibular articulation (anteroposterior view).

Conservative measures having failed, surgery became the last option to realign the mandible and discs. Initially, arthroscopy was used, but the right disc was damaged beyond repair, and after the right TMJ was opened surgically, the articular disc was removed. Neither hardware nor artificial disc material was placed at that time. Arthroscopic exploration of the left TMJ showed that the disc had suffered only minor damage, rendering open surgery unnecessary. Postoperatively, the jaw was not immobilized, and physical therapy was initiated in an attempt to return function and range of motion. The patient tolerated the surgery well, but continues to have decreased range of motion and chronic TMJ pain. She has developed many of the symptoms of chronic TMJ disorder.

Conclusion

It is possible to have a bilateral mandibular dislocation in the face of a unilateral fracture of the mandible. If the dislocations had been found at the time of the injury, the mandible could have been repaired using external fixation pins, thereby preventing freezing of the joints in a dislocated position for five weeks, and allowing an earlier start of treatment and physical therapy.

References

- Silvennoinen U, Tateyuki I, Oikarinen K, et al: Analysis of possible factors leading to problems after nonsurgical treatment of condylar fractures. J Oral Maxillofac Surg 52:793-799, 1994
 Konstantinovic VS, Dimitrijevic B Surgical versus conservative treatment of unilateral condy-
- Konstantinovic VS, Dimitrijevic B: Surgical versus conservative treatment of unilateral condylar process fractures: clinical and radiographic evaluation of 80 patients. *J Oral Maxillofac Surg* 50:349-352, 1992.
- Sevin K, Saray A, Askar I: Treatment of temporomandibular dislocation. Ann Plastic Surg 40:569-570, 1998.
- Caminiti MF, Weinberg S: Chronic mandibular dislocation: the role on nonsurgical and surgical treatment. J Canad Dental Assoc 64:484-491, 1988.

Original Contribution

Simvastatin-Induced Lupus-Like Syndrome

Abrar Ahmad, MD; Michael T. Fletcher, MD; Thomas M. Roy, MD

Introduction

Some drugs may cause a lupus-like syndrome by causing the patient to develop an autoimmune response. Historically, suspicion of druginduced lupus has been based on a clinical presentation of arthritis and/or pleuropulmonary disease that resolves when the drug is discontinued. The diagnosis of drug-

induced autoimmunity is reinforced when antihistone antibodies are found in the serum.¹

Research trials have shown that lowering serum cholesterol and low-density lipoproteins (LDL) cholesterol will reduce morbidity and mortality from coronary heart disease in patients known to have this disorder.2 The Scandinavian Simvastatin Survival Study showed a 42% reduction in the risk of death in patients with coronary heart disease and hypercholesterolemia.³ Approximately 13 million people in America have coronary artery disease and are considered eligible for lipid-lowering therapy. It is estimated that about 29% of these people are currently being treated with drug therapy.4 With such widespread use it is not surprising that identification of drug reactions that were not apparent in phase III or IV clinical drug testing should become apparent. HMG-CoA reductase inhibitors as a class of agents have been associated with the infrequent occurrence of drug-induced lupuslike syndrome. Simvastatin, a newer addition to this class of medication, has been determined to be causative in only three reported cases of lupus-like illness.5-7 We report a fourth case

ABSTRACT

The 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors are widely used as cholesterol lowering agents that have an acceptable safety profile. As a group, this class of drugs has been associated with few immunologic reactions. Simvastatin (Zocor) has been linked to three cases of drug-induced lupus-like syndrome. We report the case of an additional patient who developed pleurisy and arthralgia after he started taking this low-density lipoprotein and cholesterol-lowering agent.

of this type of autoimmunity attributed to simvastatin. Although uncommon, the clinician should be aware of the possibility of drug-induced illness since successful treatment is usually readily achieved with drug withdrawal and occasionally short-term treatment with glucocorticoids.

Case Report

A 42-year-old white man with hyperlipidemia was given simvastatin at a daily dose of 20 mg. He was a chronic smoker with diabetes mellitus type 2, non-insulin dependent, associated with retinopathy. He was being treated with metformin (Glucophage) 1,000 mg orally twice a day and glipizide (Glucotrol XL) 5 mg orally twice a day. Two weeks after starting simvastatin the patient developed generalized weakness and experienced greater difficulty in attaining glucose control. After five days of malaise, he began to have morning stiffness in his back, shoulders, and elbows, followed by a severe right-sided pleuritic chest pain that did not radiate but was worsened with deep inspiration and coughing. The pain and malaise increased to the point that he could no longer perform his job. At this point he presented for medical attention.

He had low-grade fever, with an oral temperature of 100°F. The remainder of his vital signs were normal. He had discomfort on active and passive motion of both shoulders and elbows, but the joints were free of any redness, warmth, or swelling. All other joints moved without difficulty. Examination of the cardiopulmonary systems was normal except for the patient grimacing on deep inspiration. The remainder of the physical examination was also unremarkable.

His chest radiograph was consistent with his old mild emphysematous changes. There was no evidence of pneumothorax, pneumonitis, or pleural effusion. His electrocardiogram was interpreted as normal, without signs of ischemia

From the Department of Internal Medicine, James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Department of Internal Medicine, East Tennessee State University, P.O. Box 70622, Johnson City, TN 37614-0622 (Dr. Ahmad).

or infarction. His sedimentation rate by the Westergren method was 12 mm in the first hour. His hemogram was unremarkable except for a mild neutrophilia on the differential count. Serum chemistries were normal except for mild hyperglycemia. C-reactive protein and rheumatoid factor were negative. His serum tested positive for antinuclear antibody (ANA) by the fluorescent ANA method on HEp-2 cells. The test was positive homogeneously at a titer of 1:320. Antihistone antibodies were present but anti-double stranded-DNA antibody was absent. Simvastatin was promptly discontinued.

Within 14 days of discontinuing simvastatin, the patient experienced an almost immediate and progressive improvement in his symptoms, with complete resolution. His serum ANA titers and antihistone antibodies returned to normal eight weeks after the agent was withdrawn, and he has been asymptomatic on subsequent follow-ups.

Discussion

In the United States approximately 5% to 10% of patients with systemic lupus erythematosus are thought to have druginduced illness. More than 70 medications have been implicated as a cause of drug-induced lupus, but five drugs, including procainamide, isoniazid, hydralazine, chlorpromazine or hydantoins, are thought to account for about 90% of cases. Few cases have been reported in the literature involving lovastatin, which is a first generation HMG-CoA reductase inhibitor. We could find only three case reports⁵⁻⁷ involving simvastatin, which is semisynthetic 2,2-dimethyl butyrate analogue of lovastatin. The first case was associated with inflammatory polyarthritis after eight months of simvastatin at a dose of 10 mg/day.5 The second case was associated with a Raynaud's type of phenomenon with mild arthralgia after four years of simvastatin at 20 mg/day.⁶ The third case was associated with a more malignant presentation, manifested by acute pleuropericarditis, along with exudative pleural effusion and myalgia after three months of simvastatin (the authors did not mention the doses).7

Suspicion of drug-induced lupus should be raised when a patient is started on a new medication and begins to experience unexplained arthralgia, myalgia, fever, pleurisy, or skin rash. The more serious features of spontaneous idiopathic

lupus erythematosus, such as nephritis and cerebral disease, are rare in drug-induced lupus. The most important laboratory feature is an elevated ANA titer, which corresponds to the presence of antihistone antibodies, while anti-native (double-stranded) DNA is negative.⁸

The pathogenesis of drug-induced autoimmunity is only currently being defined. Initial investigation suggests that in some patients the drug causes abnormalities in DNA methylation, a process that is essential in the regulation of T-lymphocytes and gene expression. Once the process is disturbed, antigen specific CD4+ lymphocytes begin to exhibit autoreactivity, with resultant vasculitis. The patient's symptoms may be related to the vasculitis, or possibly to deposits of immune complexes composed of DNA, DNA antibody, and complement.⁹

Drug-induced lupus should be suspected in symptomatic patients who do not have a history of idiopathic lupus, but who have positive ANA titers and at least one clinical feature of lupus erythematosus. The diagnosis is confirmed when symptoms resolve and elevated ANA titers become normal after discontinuing the most probable offending drug. ¹⁰ Fortunately, the course of drug-induced lupus is more benign than idiopathic systemic lupus erythematosus.

We hope that our case will bring the suspicion of this druginduced illness to the attention of practicing physicians who care for the patients that need simvastatin for cholesterol lowering. Additional cases of drug-induced lupus associated with simvastatin are likely, as this agent is being used more frequently.

References

- Shen GQ, Shoenfeld Y, Peter JB. Anti-DNA, antihistone, and antinucleosome antibodies in systemic lupus erythematosus and drug-induced lupus. Clin Rev Allergy Immunol 16:321-334, 1998
 Shepard J, Cobbe SM, Ford I, et al. Prevention of coronary heart disease with pravastatin in
- men with hypercholesterolemia N Eng. 1 Med 333:1301-1307, 1995
- 3. Scandinavian Simvastatin Survival Study Group Randomized trial of cholesterol lowering in 4444 patients with CHD *Lancet* 344:1384-1389, 1994
- Marcelino JJ, Feingold KR: Inadequate treatment with HMG-CoA reductase inhibitors by health care providers. Am J Med 100.605-610, 1996
 Bannwarth B, Miremont G, Papapietro P. Lupus-like syndrome associated with simvastatin.
- Arch Intern Med 152:1093, 1992
 6. Hanson J, Bossingham D: Lupus like syndrome associated with simvastatin Lancet 352:1070,
- 1998 7 Khosla R, Butman AN, Hammer D. Simvastatin-induced lupus erythematosus. South Med. J. 91 873-874, 1998.
 - 8 Price EJ, Venables PJ: Drug-induced lupus. Drug Saf 12, 283-290, 1995
- Yung RL, Johnson KJ, Richardson BC. New concepts in the pathogenesis of drug-induced lupus. Lab Invest 73, 746-759, 1995.
- 10. Yung RL, Richardson BC: Drug induced lupus. Rheum Dis Clin North Am 20:61-87, 1994

Original Contribution

An Unusual Presentation of Guillain-Barré Syndrome

Scott Keller, MD; Renga I. Vasu, MD

Case Report

A 70-year-old white man with a history of mild peripheral neuropathy, cervical spondylosis, hypertension, and hyperlipidemia was admitted to Baptist Memorial Hospital in Memphis on March 4, 1999 for evaluation of weakness and partial paralysis of his legs, arms, and face. In mid-January, after having severe fatigue for several days, he had gone to his family practitioner, who found hypokalemia, for which he was subsequently given potassium supplements. Although his hypokalemia apparently resolved, his fatigue continued, and he developed a pruritic maculopapular rash on his chest and back. He then became constipated and had no bowel movements for five days. After taking a number of different laxatives, including Dulcolax and Go-Lytely with minimal response, his abdomen became increasingly distended, and he had no bowel sounds.

He was admitted to a community hospital in Arkansas on February 23, 1999 for suspected bowel obstruction and/or hypokalemic ileus. Although a barium enema showed no obstruction, by this time he was having severe abdominal pain, for which he was given meperidine (Demerol) and promethazine (Phenergan). An additional component of his therapy consisted of walking throughout the hospital, which he did with no trouble. A soap suds enema finally relieved most of his constipation, but soon thereafter he was noticed to have ptosis of the left eyelid, shortly after which he began having numbness and tingling that extended from his chest to his feet, and later in his arms and hands. He also began hallucinating that "slime" was covering his hands, and that persons were walking on the ceiling. Within two to three days, he was unable to walk due to severe leg weakness, which was followed by weakness in his arms and hands. Next, he developed a facial paresis, greater on the left, and was unable to close his left eye; he also developed a mild right ptosis. Even

with his partial limb paralysis, his feet would "dance" when he stood. He then developed dysphagia.

He was transferred to Baptist Memorial Hospital in Memphis on March 4 for further evaluation. On admission physical examination, he was alert and oriented, although he spoke slowly and was somewhat difficult to understand. He complained of weakness and paresthesias in all four extremities, facial paresis (greater on the left), dysphagia, and constipation. He denied diplopia, visual or auditory changes, cough, dyspnea on exertion, nausea/vomiting, urinary difficulties, and hematemesis. He did not recall having any antecedent febrile illness. The patient is married and works as a manager of a building supply company. He has not smoked cigarettes since 1965. He has a long history of alcohol use (one to two vodka martinis per day), although he has not had a drink since January 1999. He has not traveled within the past six months.

On physical examination, the patient was well-developed, well-nourished, and in mild distress. He was afebrile and his vital signs were stable (blood pressure 120/70 mm Hg, pulse 85/min, respirations 20/min). His pupils were equal and reactive, and he had no papilledema. His left medial rectus was slightly weak, and he had a mild non-sustained nystagmus on right gaze. He had full visual fields. He had a moderate facial paresis (left greater than right), his tongue had a slight rightward deviation, his palate moved symmetrically, and he had moderate dysarthria. His neck muscle strength was diminished, with flexors being 4+ and extensors 4 of 5. His lungs were clear to auscultation bilaterally, and his heart examination was unremarkable. His abdomen was soft and mildly distended, with diffuse tenderness. Active bowel sounds were present in all four quadrants. He had an erythematous maculopapular rash on his back.

Neurologic examination showed right upper extremity strength to be 5-/5, left upper extremity 4/5, both with decreased muscle tone. Lower extremities were 5-/5 bilaterally. Cerebellar function was intact. Reflexes were +/- in arms, but patellar and ankle reflexes were absent bilaterally, and the Babinski was plantar bilaterally. Vibration sense and pinprick were im-

From the University of Tennessee, Memphis. Dr. Keller is now a first-year resident at the Mayo Clinic, Rochester, MN.

Reprint requests to 1929 44th Street NW, Rochester, MN 55901 (Dr. Keller).

paired in all four extremities, but proprioception was normal. Pinprick perception was normal on the trunk. His gait was not tested because of his difficulty walking.

Significant laboratory values included an ESR of 56 and albuminocytologic dissociation of the CSF (protein 126). CBC and Chem-7 values were within normal limits. Test results were normal for B₁₂, folate, heavy metal, HIV, HTLV-1, lyme, FANA, angiotensin-converting enzyme, cryptococcal antigen, and serum and CSF immunoelectrophoresis. Nerve conduction studies showed decreased velocity consistent with moderate generalized peripheral neuropathy. MRI and CT of the head were unremarkable. MRI of the spine showed mild to moderate cervical spondylosis at C5-C6 without cord involvement.

Guillain-Barré syndrome was diagnosed and the patient was given intravenous immunoglobulin along with supportive therapy. He required a feeding tube for five days due to dysphagia, but he fortunately did not require mechanical ventilation. He also required scheduled-dose laxatives for his chronic constipation and artificial tears to prevent corneal abrasion due to his facial diplegia. Aggressive physical and occupational therapy programs were started, and initially he became depressed because of his weakened condition. However, he gradually recovered limb strength to the point he was able to walk short distances without his walker. He was discharged on April 7, 1999 with scheduled home physical therapy. At discharge, he still had a mild left-sided facial paresis and mild constipation, in addition to his limb weakness. He also had slightly decreased distal vibratory and pinprick sensation in all four limbs, but he was no longer areflexic. He was in good spirits, and confident he could eventually return to his job.

Discussion

Guillain-Barré syndrome (GBS) is an acute, rapidly progressive polyradiculoneuropathy that predominately affects motor function. Approximately two-thirds of cases are preceded by a viral respiratory or gastrointestinal infection. Herpes viruses (CMV or Epstein-Barr) account for a large proportion of the virus-triggered cases. About one-third of cases follow *Campylobacter jejuni* gastroenteritis; these cases are often more severe than those of viral etiology. Less than 5% occur within one to four weeks of a surgical procedure. Other causes include lymphoma and systemic lupus erythematosus. Approximately 3,500 cases are reported each year in the United States and Canada. GBS affects patients of both sexes equally, at any age.

GBS has two forms, demyelinating (most common in the United States) and axonal.³ The axonal variant leads to destruction of axons and thus has a considerably worse prognosis than the demyelinating form. GBS is thought to be an autoimmune disorder (molecular mimicry), where the im-

mune system becomes sensitized to the proteins on the myelin sheath, causing inflammation and destruction. Both cellular and humoral responses are thought to be involved.⁴ In the cranial nerve variant with ophthalmoplegia and ataxia, antibodies against the ganglioside GQ1b are found that recognize similar epitopes on specific *C. jejuni* strains; for the classical ascending form, similar observations are made between anti-GM1 antibodies and *C. jejuni*.⁵

Patients may note a mild flu-like illness or gastroenteritis in the weeks preceding GBS. Typically, patients first develop progressive, symmetric weakness of the legs and/or hands, with distal areflexia and proximal areflexia or hyporeflexia. They may also develop paresthesias of the hands and feet. In addition, there may be autonomic dysfunction with tachycardia, arrhythmias, labile blood pressure, disturbed sweating, impaired pulmonary function, sphincter disturbances, and paralytic ileus. Cranial nerve involvement, particularly with CN VII, is seen in approximately 30% of cases. Once the initial symptoms occur, the illness quickly progresses, with the maximal deficit being seen at two to four weeks. In mild cases, the patient may experience nothing more than generalized weakness. In moderate cases, the patient may have difficulty walking and performing daily activities. In severe cases, the patient may be paralyzed; approximately 30% of patients will require mechanical ventilation. The mortality rate is about 4% to 5%. Note that dysautonomia has replaced respiratory failure as the most common cause of death. About 75% of patients recover completely, and 20% are left with mild neurologic deficits.1

Diagnosis is primarily clinical, based on symmetrical limb weakness and areflexia. CSF shows increased protein with normal cell count (albuminocytologic dissociation), usually after one week. Nerve conduction delays are common, with prolonged or absent F waves.¹

GBS is usually self-limited. Treatment should include supportive care and plasmapheresis, which should be initiated within the first two weeks, or intravenous immunoglobulin (400 mg/kg/day given over five days). Intravenous immunoglobulin has been shown to be equally effective as plasmapheresis, and is better tolerated in some patients and does not require specialized equipment.⁴ Glucocorticoids do not seem to be beneficial. Vital capacity should be periodically assessed for impending respiratory failure, and hypotension should be countered with fluids and possibly pressors. Sinus tachycardia responds to low-dose propranolol. Low-dose heparin should be used as DVT prophylaxis. Physical and occupational therapy should begin as soon as possible. Depression is common and should be treated appropriately. Relapses may occur, but these seem to occur only in patients with a protracted disease course and are not related to treatment modality.⁷

This case illustrates the varying presentations that can occur with GBS other than the classical symmetrical as-

cending paralysis. The complicating factors in this particular patient were the presenting hypokalemia, the severe dysphagia and constipation, the hallucinations, and his prior history of peripheral neuropathy. The initial admitting physician logically assumed the patient could have a periodic hypokalemic ileus. In fact, hypokalemia can be mistaken for GBS,8 even to the point of having similar nerve-conduction studies.9 Other disease entities in the differential diagnosis include botulism, arsenic poisoning, Bell's palsy, diphtheria, polymyositis, acute spinal cord lesions, sarcoidosis, and myasthenia gravis.

References

- 1. DeMatteis JA Guillain-Barré syndrome: a team approach to diagnosis and treatment Am Fam Phys 54(1):197-200, Jul 1996
- 2 Fauci AS, Braunwald E, et al: Herrison's Principles of Internal Medicine, ed 14. Chapter 381, 1998, p 2462.
- 3 Feasby TE: Axonal Guillain-Barré syndrome. Muscle Nerve 17:678-679, 1994
- 4 Sater RA, Rostami A Treatment of Guillain-Barre syndrome with intravenous immunoglobulin Neurology 51(6 Suppl 5) S9-15, Dec 1998
- 5. Van der Meche FG The Guillain-Barre syndrome, pathogenesis and treatment Revue-Neurologique 152 355-358, 1996
 - 6 Netter FH: The CIBA collection of medical illustrations. Vol 1, Part 11, 1986, pp 218-219.
- 7. Visser LH, van der Meche FG, van Doorn PA. Risk factors for treatment related clinical fluctuations in Guillain-Barré syndrome J Neurol Neurosurg Psychiatry 64:242-244, 1998
- 8 Warren JD, Thompson PD: Hypokalemic periodic paralysis mimicking Guillain-Barré syndrome (letter) Med J Australia 169(6), 342, Sep 21, 1998
 9 Warner TT, Mossman S, Murray NM Hypokalemia mimicking Guillain-Barré syndrome
- (letter) J Neurol Neurosurg Psychiatry 56:1134-1135, 1993

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Department of Health Report

Central Intake System—Assessment, Referral, and Care Coordination

Gary E. Woodward-Smith

In March 1998, the Tennessee Department of Health stepped forth in administering a new endeavor to improve treatment access for those with substance abuse problems: central intake. Prior to March, the Bureau of Alcohol and Drug Abuse Services had 57 contract agencies that performed their own assessments, mostly in urban areas. With the advent of central intake, 105 additional assessment sites were added; one for each local health department, with an additional ten satellite sites. Now assessment for entry into substance abuse treatment is available in all 95 counties through the local health departments.

It is also the goal of the central intake system to complete each prospective patient's assessment within 48 hours (two working days). Individuals eligible for this program are Tennesseans 18 years of age or older who are either uninsured or underinsured with no other financial means of obtaining alcohol and drug abuse treatment. The greatest impact has been evidenced in rural counties, where previous to this endeavor distance was a great barrier to accessing alcohol and drug treatment services.

Central intake has been doubly beneficial for Tennessee. Not only has it greatly expanded access to treatment, but through education and training it has also brought a wealth of information and understanding to health department staff regarding substance abuse prevention and treatment.

In a concerted effort to make a difference in the lives of those affected by alcohol and other drugs of abuse, through the local health departments the Department of Health is now zeroing in on one of the nation's top ten health problems. By utilizing a biopsychosocial approach and standardized assessments (the Addiction Severity Index), central intake staff are evaluating seven potential problem areas: medical, employment/support, alcohol, drug, legal, family/ social, and psychiatric. Placement in a program at an appropriate treatment level is then made, using the American Society of Addiction Medicines Revised Patient Placement Criteria (ASAM PPC-2). The ASAM PPC-2 is utilized throughout the patient's treatment episode to assure appropriate care and length of stay.

Federal block grants pay for the assessments in central intake, and are used to defray costs of treatment when possible, although treatment providers may charge individuals who are able to pay for services, using their sliding fee scale.

After discharge from the entire treatment episode, the patient's care will be coordinated for six months. During this time central intake staff will assure that needed ancillary wraparound services are made available to patients in need of such services so that they truly have a chance at an alcohol and drug-free lifestyle.

Under the Tennessee Department of Health's central intake system, we will be able to reach those who previously were not afforded assessment and treatment services. In that way, the whole person as well as the family will be treated, instead simply of simply treating the drinking and drugging abuse. The rates of recidivism should therefore decline, making Tennessee a healthier place for all.

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From the Tennessee Department of Health, Nashville. Mr. Woodward-Smith is director of TDH Alcohol and Drug Related Services.

Vanderbilt Morning Report

A Man With Dyspnea and Anasarca

Case Report

A 43-year-old black man with a medical history of hepatitis B infection, chronic obstructive pulmonary disease, and alcohol and drug abuse entered the Nashville VA Medical Center in April, 1999 with increasing shortness of breath, dyspnea on exertion, and whole-body edema. He was at his baseline level of health until October, 1998 when he became increasingly dyspneic and developed bilateral lower extremity edema. Echocardiogram revealed global hypokinesis with a markedly reduced ejection fraction of 20% (normal 45% to 55%). Right heart catheterization disclosed an increased pulmonary capillary wedge pressure of 27 mm Hg (normal 12 to 15), an elevated pulmonary artery pressure of 55/34 mm Hg (normal 20-30/10-12), and a cardiac output of 3.0 L/min (normal 5.0). The cause for his decreased cardiac function and elevated pressures was not elucidated. The patient was treated with diuretics.

He was readmitted in December, 1998 with increasing dyspnea and lower extremity edema that responded to increased diuretic therapy. Approximately one week prior to his current admission, the patient began experiencing paroxysmal nocturnal dyspnea and orthopnea.

On physical examination, he was in no acute distress but had marked anasarca. His vital signs were normal except for mild tachypnea and tachycardia. His oxygen saturation on room air was 93%. His weight was 40 lb above that of his December, 1998 admission. He had 8 cm of jugular venous distension with normal respiratory variation, and his heart sounds were distant and had an S₃ gallop. Lung sounds were decreased at the bases, and crackles were heard one quarter of the way up the chest. Abdominal examination demonstrated 3 + pitting edema with a liver edge palpable 3 to 4 cm below the right costal margin. He also had 3+ pitting edema in his lower extremities. The spleen was not enlarged.

Laboratory examination was normal except for a decreased serum sodium of 130 (normal 135 to 145), an increased blood urea nitrogen of 34 mg/dl (normal 8 to 20), and a serum albumin of 3.2 mg/dl (normal 3.5 to 4.5). The electrocardiogram showed low voltage, indeterminate axis, and an incomplete right bundle branch block. The chest x-ray documented

considerable pulmonary vascular congestion, and the echocardiogram again revealed a globally depressed ejection fraction (20% to 30%) without significant valvular disease.

Because of a concern that the patient's depressed cardiac function was the result of an infiltrative process such as amyloidosis, he had two fat pad biopsies, neither of which stained with Congo Red. He subsequently underwent another right heart catheterization to obtain an endomyocardial biopsy. Although light microscopy showed no evidence of amyloid deposition, electron microscopy of the myocardium revealed amyloid fibril formation, and serum protein electrophoresis revealed an abnormally elevated lambda light chain level. The patient improved symptomatically with diuretic therapy.

Discussion

Four types of amyloidosis involve the heart: primary amyloidosis, systemic senile amyloidosis (SSA), isolated atrial amyloidosis (IAA), and transthyretin isoleucine (Ile) 122 amyloidosis. Cardiac involvement in primary amyloidosis occurs in 25% to 34% of cases, and is the leading cause of death in affected individuals.

The most common form of primary amyloidosis is light chain amyloidosis. Abnormal plasma cells produce either lambda or kappa immunoglobulins that are partially processed by macrophages, and the resultant polypeptide backbones assume a pleated sheet conformation. The protein is subsequently deposited in various tissues giving rise to organ dysfunction. Abnormal plasma cells associated with primary amyloidosis may be either monoclonal or polyclonal. Lambda light chain amyloidosis is two times more prevalent than kappa.

SSA and IAA are age-related infiltrative diseases that are found in 65% to 80% of patients older than 80 years. Atrial natriuretic peptide comprises the major amyloid protein subunits in IAA. SSA is composed of normal transthyretin, a transport protein that carries thyroxine and retinol binding protein.

The fourth type of amyloidosis, Ile 122, is caused by a point mutation in codon 122 of the transthyretin gene, which results in the substitution of isoleucine for valine during transthyretin translation. The risk of developing cardiac amyloidosis is 7.5 times greater in individuals homozygous for the Ile 122 allele than those without the mutation. An estimated 12,000 blacks are homozygous for the Ile 122 allele, which may account for a significant proportion of cardiovascular morbidity and mortality in this population.

Presented by Kurt Oelke, MD, third year medical resident, and David Aronoff, MD, the Hugh J. Morgan chief medical resident, Vanderbilt University Medical Center, Nashville. Edited by Jason D. Morrow, MD, Vanderbilt Medical Center, Nashville.

Amyloid fibril deposition can result in multiple cardiac problems. Coronary vascular infiltration may precipitate angina due to the epicardial coronary artery involvement. Moreover, deposition may occur within the myocardium and cause localized ischemia.² Amyloid deposits may interrupt the conduction system and provoke various arrhythmias, including ventricular fibrillation and complete heart block, although atrial fibrillation is the most common dysrhythmia. If amyloid is deposited within the valves, regurgitation and stenosis may result.

Amyloid-induced congestive heart failure portends a poor prognosis, with a survival ranging from nine months to three years.³ Most individuals with cardiomyopathy have cardiomegaly and systolic dysfunction, although a thickened myocardium resulting in a restrictive cardiomyopathy with diastolic dysfunction is not uncommon. Echocardiography may show a hyper-refractile "starry sky" appearance, and fluoroscopy may show a thickened ventricular wall with decreased ventricular filling in early diastole.

The diagnostic workup of a patient with suspected cardiac amyloidosis should include both echocardiography and biopsy of non-cardiac tissue (e.g., fat pad) to determine the presence of amyloid fibrils.⁴ If a fat pad biopsy is negative, but suspicion of cardiac amyloid remains, an endomyocardial

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The treatment of cardiac amyloidosis is directed at correcting the underlying disorder where possible. Interventions such as prednisone and melphalan that reduce plasma cell proliferation in primary amyloidosis have been shown to improve survival. Because of death due to progressive disease, results of cardiac transplantation have been disappointing in all types of amyloidosis. Diuretics remain the treatment of symptomatic heart failure.

References

- 1. McCarthy RE, Kaper EK. A review of the amyloidoses than infiltrate the heart. Clin Cardiol 21.547-552, 1998.
- Smith RR, Hutchins GM Ischemic heart disease secondary to amyloidosis of intramyocardial arteries. Am J Cardiol 44 413-417, 1979
- arteries Am J Cardiol 44 413-417, 1979

 3 Donelan BJ, et al. Fulminant amyloid cardiomyopathy. Cardiology 83.124-127, 1993.
 - 4 Unverferth DV, Baker PB. Value of endomyocardial biopsy Am J Med 80:22-32, 1986

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TMA Alliance Report

The New Bedford County Medical Association Alliance

The Bedford County Medical Association Alliance was established in September, 1998. A meeting was held to determine interest and it was decided that the alliance would be a great addition to the Bedford County community as well as the medical community. Officers were elected, a mission statement developed, and the bylaws written.

We have had a very productive first year. In December, we decorated a Christmas tree in the Medical Arts Building and held our first annual holiday luncheon. An educational program on long-term health care was held and several members attended a Day at the Capitol. In March, we hosted our first annual Doctor's Day celebration. We raised \$100 for the AMA Foundation by providing a basket for auction at the Annual TMAA Convention. During the summer we held a fax campaign to support the Quality Health Care Coalition Act of 1999, and made a contribution to breast cancer education and research by selling the Longaberger Horizon of Hope baskets.

This September we kicked off the year with a recruitment coffee. On October 14, to celebrate SAVE, we implemented "Big Hands Helping Little Hands." This project will provide the "Hands Are NOT For Hitting" workbooks to 1,120 kindergarten and first grade students in Bedford County. To recognize Breast Cancer Awareness Month, the alliance will provide breast cancer models for hands on training for self-breast examination for a Breast Cancer Awareness program held for the Shelbyville Women's Club. For Thanksgiving we will host "Thanks For Giving" by collecting toilet articles for our local Women's Shelter. In November we will have an educational program, "Financial Planning for the Medical Family" and holiday in home shopping with Timeless Treasures. This spring we plan to complete a project to increase organ donation.

We are excited about our new alliance, and are working toward increasing our membership. We are thankful to the TMA for their support and are looking forward to working together this year.

> Tracy Martini, President Bedford County Medical Association Alliance

In Memoriam

William S. Havron Jr, MD, age 50. Died November 3, 1999. Graduate of University of Tennessee College of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Robert McClellan, MD, age 75. Died November 1, 1999. Graduate of Virginia Commonwealth University College of Medicine. Member of Nashville Academy of Medicine.

Harry Stone, MD, age 78. Died October 28, 1999. Graduate of Jefferson Medical College. Member of Chattanooga-Hamilton County Medical Society.

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Maury County Medical Society Heather E. Bazzel, MD, Columbia Clay W. Ferguson, MD, Spring Hill

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Putnam County Medical Society Brian K. Dockery, MD, Cookeville

Sullivan County Medical Society James D. Louthan, MD, Kingsport Sheryl D. Pack, MD, Bristol

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during October, 1999. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Nat E. Hyder Jr, MD, Johnson City Jay F. Lewis II, MD, Chattanooga William A. Loy, MD, Oak Ridge Michael T. Rumble, MD, Cleveland James E. White, MD, Cleveland David R. Yates, MD, Hermitage

Personal News

David T. Dodd, MD, Murfreesboro, was honored by the College of Medicine at the University of Tennessee-Memphis in recognition of his distinguished service to the rehabilitation of physicians with chemical dependence and emotional and/or mental illness.

Ian N. Hamilton Jr., MD, Chattanooga, has been elected a Fellow of the American College of Surgeons.

Larry Patterson, MD, Crossville, was featured as one of five top cataract surgeons in the country by the Review of Ophthalmology.

Harold F. Vann, MD, Clarksville, received the Pediatrician of the Year Award from the Tennessee Chapter of the American Academy of Pediatrics/Tennessee Pediatric Society for his dedication and perseverance to TennCare reform.

The University of Tennessee-Memphis recognized the following TMA members for their distinguished contributions to the medical profession throughout their careers: Ralph S. Hamilton, MD, Memphis; James Harvey Hendrix, MD, Nashville.

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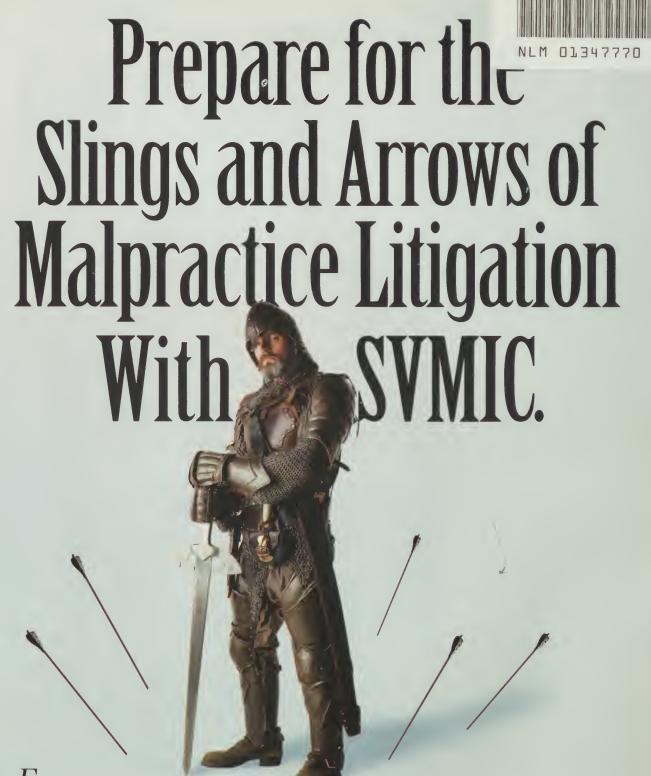
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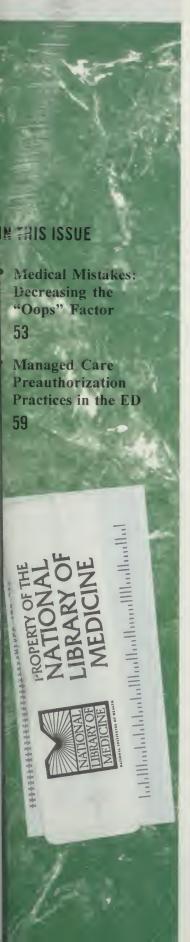
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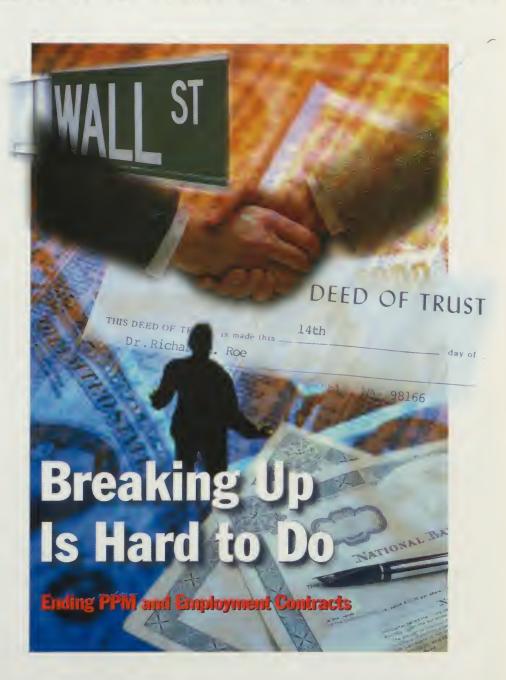


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Editor

John B. Thomison, MD

Assistant Editor

Robert W. 1kard, MD

Managing Editor Jean Wishnick

Business Manager Donald H. Alexander

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Russ Miller

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Jean Wishnick Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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James Chris Fleming, MD

A Moment for Boasting

I recently returned from the AMA interim meeting. There were many interesting meetings and forums and, again, it was an honor to represent the Tennessee Medical Association at this meeting. As we enter the new century, I found one of the most interesting presentations to be an overview of the medical advances of the past 100 years. It was called "Medical Triumphs of the Twentieth Century—A Moment for Boasting" put on by the Forum for Medical Affairs. I wanted to share with you a few of the topics that were covered, because it certainly gives one a feeling of amazement at the progress medicine has made and a sense of wonder for the future.

First, Sydney Finegold, MD, editor of *Clinical Infectious Diseases*, addressed "The Conquest of Infectious Disease." At the turn of the century, the Yellow Fever epidemics were still a threat. Polio was a constant source of concern, and tuberculosis was rampant. Infectious disease was a killer. There were no antibiotics and no antituberculosis drugs. As the century progressed sanitation and hygiene became universally accepted and this new standard brought down the

death rate by approximately two-thirds. Immunizations became common, and the use of antimicrobials became widespread also lowering the death rate. There was a significant decrease in infant and child mortality rates. The life expectancy of a white adult male increased from 50 to 77 years. The leading causes of death changed from pneumonia and TB to heart disease.

Next, Joseph Murray, MD, professor of surgery (Emeritus) Harvard Medical School, spoke regarding "The History of Organ Transplantation." Dr. Murray performed the first kidney transplant in 1954 using identical twin brothers, for which he subsequently was awarded the Nobel Prize. Many physicians consider this to be the single most important surgical advance of the century. In 1966, Dr. Murray performed a kidney transplant on a woman using a kidney donated from her identical twin, and amazingly, both sisters were still alive in 1999. He noted that the immunosuppressive agent Imuran was the most significant pharmaceutical advancement for organ transplantation, which allowed the advent of cadaver transplants in 1962. As the next century begins, we accept organ transplantation as a daily occurrence. In the 1930s and 1940s, organ transplantation was generally regarded as impossible.

Thoru Pederson, PhD, director to the Worcester Foundation of Biomedical Research, discussed "A Century of DNA Reaches the Bedside." He reminded us that Gregor Mendel put forth the gene theory in 1865. A huge leap was taken as Watson and Crick gave the world the structure of DNA in 1956, and the field of gene engineering was born in the 1970s by Berg, Boyer, and Cohen when they presented "recombinant" DNA. We have the trial of O. J. Simpson to thank for bringing DNA awareness to the public and we now realize the avenues that DNA research has opened to forensic medicine. Dr. Pederson said the definitive model of the human genome is expected to be unveiled in 2003. He finished by reminding us that although DNA research has come so far during this last century, it has most certainly taught us that many major questions are still left unanswered.

Finally, Stanley Baum, MD, editor of the *Journal of Academic Radiology*, spoke of the "Advances in Imaging in the 20th Century." What an incredible journey radiology has made in 100 years! Wilhelm Roentgen discovered the x-ray accidentally in 1895. Medicine embraced his discovery and during the Spanish-American War the x-ray was widely used. Roentgen accepted the Nobel Prize in Physics in 1901. In the 1970s computed tomography, with its cross-sectional ability, was introduced, and the use of ultrasound, an outgrowth of radar in WWII, became widespread. Mammography has been an amazing diagnostic tool. Magnetic resonance imaging was introduced into hospitals in 1981 and multiplanar images became available. The MRI presented a diagnostic modality with virtually no risk. Contrast this method of examining the brain with the pneumoencephalogram which many of us ordered earlier in our careers.

I recognize that most of you are acquainted with the advances in this overview of medical history, but a look back at the amazing journey of medicine during this century is truly "A Moment for Boasting." In 1942, a patient with sepsis who was believed certain to be at death's door was treated with the new drug, penicillin. After receiving this drug, she made an amazing recovery. As you may know, this woman died in 1999 at the age of 90. We are privileged to be a part, of this profession and to be practicing medicine in the year 2000. What is in store for medicine in this new century? We can only IMAGINE . . .

James C Flenren MD

Editorials



John B. Thomison, MD

And the Good News Is . . . Not

If you're looking for good news, you've come to the wrong place. There is precious little of it in this issue of *Tennessee Medicine*. What there is, though, is a lot of information that will help you keep your own news from getting worse. In fact, most of what's here is not Tennessee medicine, but things having to do with the practice of Tennessee medicine—unfortunately.

That being the case, in some ways this is one of the most important issues we have ever published, and you need to pay close attention to what it says. As you read about some of the entities "caring for" patients, keep in mind that, in the words of the Negro spiritual, "Eve'body talkin' 'bout Heb'n ain' a'goin' there."

Let's dispose first of the news that's least bad.

Years ago, getting married in Tennessee was difficult, and a quick marriage impossible due to the requirement for a blood test for syphilis and a three-day waiting period. So for quickie hitching in elopements and such, Tennesseans—or at least those in the Nashville area, including some of the WWII military personnel stationed in the area—would rush across the Kentucky line, where the only requirement was a willing justice of the peace, and attention to the caveat "Marry in haste; repent at leisure," since, again unlike Tennessee, a divorce in Kentucky was very difficult to come by.

Despite passionate desire and vows made for eternity, for a variety of reasons even some of the best of marriages sometimes just sour, and ultimately have to be dissolved. The same is true of any other sort of combined effort, including those formed for the practice of medicine. As with Kentucky marriages, dissolution of these contracts is much easier said than done. Two of our medical practice articles address this aspect of medical practice. The first has to do with finding and gaining access to the road to freedom, the potholes and obstructions likely to be encountered along the way, and how to avoid or circumvent them. The second article, assuming that maneuver to have been successful, addresses the question of what to do next, discussing the various practice modes available to the now lonely medical floater, which would, of course, include the brand new one.

And now to the potholes and obstructions littering the medical landscape. The first of these addressed is presently just a vision on the horizon, and one hopes against hope that it will turn out to be a mirage. Since these days a doctor need not be psychotic to believe "they" are out to get him, there is every reason to believe he is about to be badgered by yet another bureaucratic intruder in the form of an "oops" watcher. Medicine not being an exact science in the first place, and given the myriad variables present in any human body, with its variety of unanticipated responses to attempts to redirect its errant functions, misadventures are inevitable, and are also sometimes fatal. Several studies, not all of them scientifically based, have posited what seems to me to be an exorbitant percentage of less than perfect outcomes that are due to either physician or pharmacist error. No doctor would contradict that, except to say that the number seems artificially high. A number of reasons are given for this, but a relatively large number are due to true mistakes. I have seen no mention in all of this of patient compliance, which in older people is a fairly common cause of poor results, and sometimes death. We oldsters take a lot of pills several times a day, and keeping up with them is not easy, particularly as memory begins playing us tricks. The answer to the problem of treatment error certainly does not lie in another layer

of snoops, and even more certainly not in criminalizing it in any way. Such will not only unnecessarily increase the cost of care, but will accomplish nothing positive.

Religious scholars make much over similarities between the teachings of various religious leaders, as well as philosophers of various persuasions. Much of that is a thinly disguised attempt to discredit Judeo-Christian teachings, and Christianity in particular. Since thoughtful people neither uncommonly nor unexpectedly arrive at the same or similar conclusions, it is not really surprising that even educated Christians might sometimes confuse quotations as to their source, whether from the Bible, Shakespeare, or Poor Richard (Benjamin Franklin), for instance. It was Jesus who said, likely not uniquely, "You cannot serve both God and Mammon."

Lastly, then, we are presented a true horror story about the *real* medical malpractice: the perfidy and avarice of the MCOs and HMOs. The setting of the drama—or is it a charade?—before us here is the Emergency Department, but the scene is ubiquitous.

The problem is the same old one of God (care for persons—the patient) versus Mammon (care for the bottom line—the stockholders.) It has to do only very tangentially with Christianity, or even with God, for that matter. For doctors the choice is easy. Their care is for and their loyalty to their patients. It is a choice they made from the first, and after that, the way they were trained. Apparently it is easy for the HMO and MCO leadership, as well. The words *charity* and *goodwill* seem not to be in their lexicon.

So pay close attention. You need to become not only acquainted but thoroughly familiar with this complex relationship, because the demands, and even the whole thrust, of the regulations of these entities are often in direct conflict with the law, and you could find yourself inadvertently criminally negligent in the care of your patient.

Oh—and since as I write Y2K has not yet happened, I hope it is going well for you, and that it has not or will not present any horrors worse than, or even as bad as, those you've been reading about here.

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The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

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TennCare Blame

To the Editor:

I wish to express my gratitude to Dr. Douglas Springer for his simply outstanding article on placing the blame for TennCare's plight (TennCare Looking for Blame in All the Wrong Places. Tenn Med 93:10-11, 2000). I have not seen it stated as well anywhere else. We should encourage Dr. Springer to submit this for national publication to such as Time, Newsweek, or The Wall Street Journal without waiting for them to pick it up from the Kingsport Times-News. Have the wire services seen it yet? It's great value is in explaining this to those outside the state of Tennessee, many of whom seemed to think that TennCare was the longed for perfect example of how managed care companies, in competition with each other, would drive down medical care costs. Now that BC/BS is about to withdraw from TennCare coverage, the crash of TennCare may be heard from coast to coast. It was not the intended panacea. I would hope Dr. Springer would be willing to serve on any committee to redesign a new system if one is ever formed. Or, better, let him direct such an effort. His vision is a clarion call for change!

J. Kenneth Herd, MD Professor of Pediatrics Chief of Pediatric Rheumatology James H Quillen College of Medicine East Tennessee State University PO Box 70578 Johnson City, TN 37614

Flexible Sigmoidoscopy Revisited

To the Editor:

For years we've enjoyed the Loss Prevention Case of the Month in *Tennessee Medicine* as written by Dr. J. Kelley Avery. Recently he described a lawsuit filed charging the primary care physician with failure to diagnose and treat colon cancer in a timely manner.¹

This resurfaces issues raised in our study January 1998² and the subsequent criticisms from our colleagues in gastro-enterology.^{3,4}

Since our dialogue, new studies and/or previously unmentioned ones deserve review. In an attempt to decrease the high fatality associated with late stage diagnosis of colorectal cancer, investigators studied the availability of such screening through a simple correlation of physician supply stratified by primary care. At several levels, increased availability of primary care physicians led to decrease late stage diagnosis.⁵

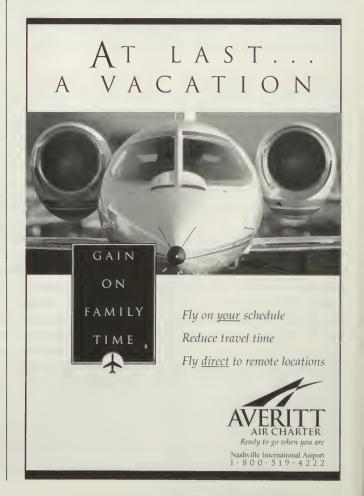
For years we have attempted to improve the sophistication and training available in the early detection of colorectal cancer by means of the most powerful diagnostic method currently available, i.e., flexible sigmoidoscopy/colonoscopy.

In this final month of the millennium, we see a tragic death from colorectal cancer and continue to defend our study suggesting endoscopy-capable primary care physicians as part of the solution. Your consideration and comments are appreciated.

Wm. M. Rodney, MD Kenneth Carr, MD Shawn Gentry, MD UT College of Medicine Department of Family Medicine 1111 Union Ave, Suite A Memphis, TN 38104

References

- Avery JK: A horrible system for everybody (loss prevention case of the month). Tenn Med 92:444-445, 1999.
- Carr K, Worthington M, Rodney WM, et al: Advancing from flexible sigmoidoscopy to colonoscopy in rural family practice: A case report. *Tenn Med* 9:21-26, 1998.
 Frakes JT, Johanson JF: Colonoscopy in rural family practice (letter). *Tenn Med* 91:474, 1998.
- Frakes JT, Johanson JF: Colonoscopy in rural family practice (letter). Tem Med 91:474, 1998.
 Carr KW, Worthington JM: Colonoscopy in rural family practice—a response (letter). Tem Med 92:28, 1999.
- Roetzheim RG, Pal M, Gonzales EC, et al: The effects of physician supply on early detection of colorectal cancer. J Fam Pract 48:850-858, 1999.



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Breaking the PPM Contract How to Regain Independence When PPM Ownership No Longer Works

Bob Healy

Signing a Physician Practice Management (PPM) contract probably wasn't easy. Giving control of a medical practice to an outside entity takes careful consideration. Breaking up, however, will be even harder to do.

There are legal challenges to surmount and substantial capital to raise. And that's only the beginning. Every aspect of operations will be affected—from creating clinical protocols, to determining compensation and governance, to selecting vendors for medical supplies. This is not a decision to make lightly. Or alone.

When the PPM industry took a nosedive on Wall Street, it merely emphasized that many of these arrangements were not working. While administrative functions and information technology often improved, many of the 75,000 physicians enmeshed in these relationships—including hundreds in Tennessee—now work harder for less money. That result was unexpected.

The effects of managed care led many physicians to sign PPM contracts. They sought relief from endless administrative chores and time-consuming management duties. Many physicians discovered, however that loss of managerial control affects the way they practice medicine. They are expected to see more patients in less time, and compensation is often lower.

Since most PPM contracts are valid for 40 years and contain non-compete clauses for participating physicians, the legal obstacles are daunting. An attorney specializing in health care is essential. "To terminate a contract, the practice must document inadequate performance by the PPM," explains attorney Leigh Walton of Bass, Berry & Sims PLC, a Nash-ville-based law firm. "This is particularly difficult," Walton explains, "because the physicians are not involved in the day-to-day management of the practice, and as a result may not necessarily have specific examples to cite."

As more physicians seek to break the ties that bind them to a PPM company, consulting firms with industry expertise

in practice management are evolving to assist attorneys who are tackling these issues on behalf of their clients. "These firms apply industry knowledge to specific practice patterns, as well as expenses and revenues, to identify problem areas," Walton explains. "In essence, through their analysis they determine if the medical group received value from the PPM company." Once losses or mismanagement is quantified, negotiations to repurchase the practice can begin.

The amount of resistance the PPM raises depends on a number of circumstances. Some smaller specialty PPMs are still profitable, well-run organizations. If the medical practice offers a fair price, negotiations tend to run smoothly. Due to tremendous economic pressure, larger publicly traded companies present a more difficult challenge. Termination of a service agreement and the sale of related assets must be recorded as an expense or loss. Because losses affect earnings, and thus, the market price of their securities, a practice can expect to encounter tough negotiations.

Beyond the legal obstacles, a practice has to address numerous financial, practice management, and governance issues. Once physicians decide to terminate their PPM affiliations, they should handle reorganization in two phases.

The first stage prepares the practice for change by creating a model for physician group reformation. A consensus should be established among the physicians regarding a vision for the future of the practice and expectations during the transition. As management guru Stephen Covey suggests, "Begin with the end in mind." What should the practice be once it regains independence? Remember to address financial projections, proposed governance structure and staffing, as well as operational and financial systems.

Once these steps are complete, the practice is ready for phase two: reorganization development and implementation. Among the issues to consider are:

- Finances: physician compensation and asset contribu-
- *Operations:* policies and procedures, medical records, administrative systems, facilities, and compliance program implementation.
 - Information technology: computer systems and informa-

Headquartered in Atlanta, Physicians Strategic Resources assists physicians and their attorneys in the PPM contract disengagement process. Mr. Healy is president of the company.

tion management.

- *Human resources:* staffing model, compensation, retirement plan, and benefit plan design.
- Governance: management structure, decision making, and policy setting.
- *Marketing:* unwind plan, pre-launch strategy, and managed care contracting.
- *Quality assurance:* clinical standards and protocols, and outcomes analyses.

Beyond legal and operational issues, be prepared to deal with potential internal disagreement. Many practices meet with resistance from within their own organizations as members attempt to determine the best way to proceed. Larger multispecialty groups under severe financial pressure will probably face the biggest barriers as members may not agree on whether or not to dissolve the practice, remain together, or create multiple specialty-specific practices. A vision developed at the beginning of the process will now come in handy if individuals begin to waver.

Breaking a PPM contract is a monumental task. Expert legal counsel and outside resources are essential to support you during the transition. With the demise of PPMs, many again believe physicians in private practice are the fundamental building blocks and sustaining force in delivering quality health care. Make sure your practice's new structure creates an enterprise that supports this premise.

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Unwinding the Physician's Employment: Choosing a Practice Structure

Sandy Benson, Health Care Attorney

Many deals of the last several years between hospital systems and physicians or between practice management organizations and physicians are unwinding. Large losses by hospitals are causing hospital boards to "spin-off" their employed physician practices. Likewise, groups that sold their practices to practice management companies are seeking ways to rescind the management contracts because lower earnings and higher overhead with the practice management company have contributed to a significant drop in the physicians' income.

As the deals of the last few years "sour," physicians are scrambling to set up their own practices once again. The choice of entity is a key decision that physicians must consider when reestablishing their sole or group practice. In Tennessee, medical practices can be structured in a variety of ways. The following is a brief summary of the advantages and disadvantages of the various entities available for physician organizations.

Professional Corporations

The corporate model is the dominant legal structure nationally for medical groups. The Professional Corporation (PC) offers the greatest certainty in terms of protecting the personal assets of owners from the risks of the business. A PC, like a regular business corporation, is treated as a legal entity separate and distinct from its shareholders. Therefore, the corporation owns its own assets and is liable for its own debts. As a result, the personal assets of shareholder-physicians (including shareholder/employee-physicians) generally are beyond the reach of corporate creditors. For example, the corporation may be able to protect the individual shareholder-physicians from liability for patients or guests injured on the business premises, since these injuries do not arise from acts or omissions of the physicians in their professional capacities.

There is, however, a limitation on the liability protection

of the corporation. The PC in Tennessee will not shield a physician from liability for his own negligent or wrongful professional acts or omissions. The PC should generally shield a physician from the liability claims against other physicians within the group, provided the physician was not also at fault. Thus, there is still a strong legal reason for practicing in a PC.

Physician-shareholders may be required on occasion to personally guarantee certain of the corporation's debts as a condition of obtaining financing. Physicians who personally guarantee the obligations of the PC are personally obligated with respect to these corporate debts.

In order to gain asset protection from incorporating a practice, the physician must not only form a corporation in accordance with the law, but must also act as a corporation. The shareholders must comply with corporate formalities, such as issuing stock, maintaining minutes of directors and shareholder meetings, filing corporate returns, and identifying the business as a corporation. It is also imperative that the physician-shareholders keep their corporate and personal assets separate. Personal funds and other assets should not be mixed with corporate funds, and corporate property should not be diverted to personal use. The corporation should be adequately capitalized so that the corporate structure cannot be pierced by someone claiming that it is merely a veil for the shareholder's personal activities.

Comparison of PCs to Other Entities—The Professional Limited Liability Corporation (PLLC) is often preferred over the PC by tax advisors. The partnership tax rules of the PLLC are generally considered more favorable than the "S" or "C" tax statuses available for the PC. On the other hand, the newness of PLLC statute means the extent of its liability-limiting provisions is uncertain. Further, the double taxation problem of "C"corporations is typically not a problem for medical practices that do not own highly appreciating assets and which drain off most of their income in the form of deductible compensation and fringe benefits. In addition, the PC can fully deduct the health insurance premiums of its physicians and their families. In contrast, medical practices operated as sole proprietorships or pass-through entities can generally only deduct a percentage of health insurance premiums.

Sandy Benson, of Sandy S. Benson & Associates, PC, practices in Murfreesboro, where she counsels health care providers and corporate clients on Health Care Law and Business Law.

PLLCs and Registered LLPs

PLLCs are popular because they combine the legal and federal tax characteristics of corporations and partnerships, while avoiding many of their disadvantages. Specifically, a PLLC can offer limited liability protection to all its owners (referred to as "members") while being classified as a partnership for federal income tax purposes (assuming there are two or more members). Similarly, an Limited Liability Partnership (LLP) offers limited liability protection while being taxed as a partnership.

Legally, the PLLC and the LLP are two different entities under Tennessee law. The PLLC is governed by the LLC act enacted in 1994. Registered LLPs became available in Tennessee in 1995 under an amendment to the Uniform Partnership Act. The liability-limiting provisions of the PLLC statute appear to be more favorable than the LLP, and therefore many legal advisors prefer the use of the PLLC. The newness of both the PLLC and LLP entities makes both of these entities more uncertain in liability protection than the PC.

Legal Considerations—The personal assets of PLLC members are protected from "general" PLLC debts and obligations, and from the wrongful acts or omissions of other member-physicians or employed-physicians when that physician is not at fault. However, physicians in a PLLC remain exposed to liabilities resulting from their own negligent or wrongful acts or omissions. Like corporate shareholders, PLLC members are also not liable for the contract obligations of the PLLC, unless the member has personally guaranteed such obligation.

The registered LLP statute provides that a partner in an LLP is not liable for liabilities and obligations of the partnership or another partner arising from the omissions, negligence, wrongful acts, or malpractice of another partner. However, the partner is liable for his own omissions, negligence, wrongful acts, misconduct or malpractice, and that of any person under his or her direct supervisions and control. This language appears to be narrower than the liability-limiting provisions under the corporation and limited liability company statutes.

In 1999, Tennessee revised its limited liability act to allow single member limited liability companies. Therefore, sole practitioners may consider forming a PLLC for liability protection purposes. However, the tax implications should be discussed with a tax advisor prior to making this transition.

Recent Tennessee legislation imposes a franchise and excise state tax on limited liability companies in the same manner as corporations are taxed. In contrast, the new law does not impose the state franchise and excise tax on sole proprietorships or general partnerships, although the legislature may consider taxing these forms of business in next year's session.

Comparison of PLLC to Other Entities—Because PLLC laws are new, inevitably there are legal uncertainties associ-

ated with making the choice to operate as an LLC rather than as a general partnership or as a PC. Some advisors believe there are even more legal uncertainties in operating as a registered LLP, because the language limiting the professional's liability does not appear to be as broad as the PLLC or PC provisions.

However, only PLLCs (and perhaps LLPs) offer both the legal advantage of limited liability for all owners, and federal partnership taxation (assuming there are two or more members and assuming partnership taxation is a benefit). The combination of legal benefits and partnership tax treatment is the driving force behind the growing use of PLLCs.

In Tennessee, the imposition of state franchise and excise taxes has for the present thrown a curve ball in the drive to form PLLCs. Tax advisors consider doing business in Tennessee as a PLLC or as a corporation a negative tax effect as compared to a sole proprietorship or general partnership. However, the adverse tax effects should not be overstated: If the practice does not own significant real estate or assets and if the income is largely taken through compensation and benefits, the state franchise and excise tax may not be very substantial. The superior liability protection offered by PLLCs and PCs may greatly outweigh the cost of the state taxes. The protection from liability may be especially important if the physician is forming an entity with one or more other physicians.

General Partnerships

The partners of a general partnership are personally liable (without limitation) for all debts and obligations of the partnership. The liability of general partners is "joint and several" in nature. This means that any one of the general partners can be forced to make good on all partnership liabilities. That partner may be able to seek reimbursement from the partnership for payments in excess of his share of liabilities. But this depends on the ability of the other partners to contribute funds to allow the partnership to make such reimbursement.

Note also that general partners are jointly and severally liable for partnership liabilities related to wrongful acts and omissions of the other general partners and the partnership's employees. Thus, if a physician partner is at fault on a malpractice claim, and if the award exceeds the amount of insurance, the injured patient can collect from any and all of the partners on the judgment. In addition, general partners are personally liable for their own wrongful acts and omissions.

Finally, each general partner usually has the power to act as an agent of the partnership and enter into contracts that are legally binding on the partnership (and ultimately on the other partners). For example, a partner can enter into a lease arrangement that is legally binding on the partnership. It is critical, therefore, if a general partnership is to be formed, for partners to have high levels of trust in each other.

Comparison of General Partnerships to Other Entities—
The critical disadvantage of general partnerships is the unlimited personal liability of all partners for all liabilities of the entity and the other partners in the course of partnership business. Thus, general partnerships offer less protection to the owners' personal assets than do PLLCs or PCs. This fact must be balanced against the potential benefits of federal partnership taxation. Also, Tennessee law currently allows general partnerships to escape the franchise and excise taxes that PLLCs and PCs are required to pay. It is important to work with your tax advisor in quantifying this additional tax. The tax advantage may pale in comparison to the additional exposure to the liabilities of your partners.

Sole Proprietorships

A sole proprietorship is simply a business owned and operated by one individual. There is no legal separation of liabilities from the personal assets of the physician. The physician is liable for his own wrongful acts or omissions and for those of all agents or employees of the practice. The creditors of the sole proprietor can reach his own personal assets to satisfy their claims. For example, the employer is liable when an employee causes an accident while driving his own car on an errand for the physician. The unlimited liability is a major drawback of operating as a sole proprietorship. It is essential that sole proprietors carry adequate liability insurance for both malpractice and general liability. However, physicians should be aware that there are many insurance exclusions, such as exclusions for sexual harassment claims. Thus, insurance does not always cover a claim or cover the full extent of a claim.

Comparison of Sole Proprietorship to Other Entities— The sole proprietorship is simple in that it does not require a separate entity. However, the assets of the sole proprietor are subject to the claims of creditors of the physician proprietor and claims against the sole proprietor's employees or agents. A sole proprietor should strongly consider forming a single member PLLC or a sole shareholder PC to reduce the legal risks of operating as a sole proprietor.

Choosing the Entity to Own the Assets of the Practice

The physicians who sold their practices to a practice management company or to a hospital typically sold all of their practice assets, including the medical equipment and computer systems. In order to reestablish the practice, it is essential to acquire equipment and computer systems, either by buying back the old assets, purchasing assets from another source, or leasing assets. The purchase of the old assets, and their purchase price, is generally negotiable. Health care counsel should be engaged to review all of the terms of the purchase or lease. I have seen provisions in some of these docu-

ments that expose physicians to potential claims from third parties based on claims arising while the hospital or practice management company owned the assets. Many of these liabilities would be the legal responsibility of the hospital or practice management company and should not be accepted by the physicians reacquiring the assets.

If the physician is forming a new medical practice organization, the new organization is not necessarily the organization that should own the assets. It might be preferable for a separate partnership or limited liability company to own the assets. The assets would then be leased to the medical practice. This may facilitate the growth of the practice in the future. New physicians do not like to pay a large amount to buy into a practice. By keeping the equipment and other high cost assets out of the medical organization, new physicians would pay a smaller amount. In addition, there may be tax reasons to have a separate organization for the assets.

Leasing or Owning the Medical Building—Physicians in transition must look at their practice location options. Many groups desire to stay at their current location. This may require leasing the office building from the hospital or practice management company. The negotiation of a fair lease price is important for the economic viability of the practice. Also, self-referral and anti-kickback issues are present in leases between physicians and health care entities and should be carefully considered by legal counsel.

If the physicians cannot work out acceptable lease terms, then acquiring new property may be the answer if a suitable location at an affordable price is found. If the medical practice is going to purchase new property, a separate entity should be considered. Assets expected to appreciate significantly (such as real estate) should probably be owned by a passthrough entity, such as an LLC, which can then lease the assets to the medical practice.

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Medical Mistakes: Decreasing the "Oops" Factor

Brenda Williams

President Clinton expects a report back this month from a task force analyzing the Institute of Medicine's bombshell report on medical errors. The document—titled "To Err is Human: Building a Safer Health System,"—was released in late November 1999, citing two different studies estimating that medical mistakes kill between 44,000 and 98,000 people each year, with costs totaling up to \$29 million.

"I don't know a single health care worker who wants to make a mistake or wants to give bad care. If this study leads to systems that are safer and procedures that are safer, then we will all benefit from it."

TMA President J. Chris Fleming, MD

"The President wants a definitive plan; I think that's parallel to what the NPSF agenda is," Manasse says, adding that he expects a concerted effort to respond to and revamp health care in the wake of this report. "I think, out of the interagency deliberations, that safety will rise to the top in all the health services."

The interagency discussions have already begun.

Soon after the White House action, a U.S. Senate subcommittee was clustered in hearings dealing with the IOM/NPSF report and exploring ways to increase patient safety and reduce the incidence of serious medical errors.

Initial reaction from the American Medical Association and the Tennessee Medical Association has been cautiously optimistic. AMA delegates meeting in early December approved a resolution to let the American public know the organization is fully in favor of efforts to reduce mistakes made by hospitals and doctors. Dr. Robert Bowers, a former President of the TMA, led the Tennessee delegation. "We have been committed to doing this and have always tried to improve the quality of care; we want to improve the quality of care from one end to the other, and it doesn't matter where it is, whether it's hospitals, pharmacies, outpatient care, public health, whatever," he says. "The resolution stated that we as physicians are committed to having quality care in this country that's free of any mistakes, whether it's omission or commission. That's what we're about."

"It's about working together to zero in on patient safety."

-President Clinton

The nation's chief executive called the figures "disturbing" in a December news conference. "This is about far more than dollars or statistics," Clinton gravely advised. "It's about the toll that such errors take on people's lives and on their faith in our health care system." The President announced initiatives that included:

- Evaluation of the IOM report and its recommendations.
- A directive to federal agencies administering health plans to take steps to reduce errors.
- Legislation authorizing \$25 million for research to improve health care quality and prevent medical errors.
- Plans for a national conference in March on preventing medical errors.

The co-authors of the IOM report couldn't be more pleased. "I think we're buoyed by the President's taking leadership on a very substantial public issue," says Dr. Henri Manasse, chairman of the board of directors for the National Patient Safety Foundation. The NPSF was founded by the American Medical Association in 1997 and contributed two years of its own research to the report.

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

"It's the very nature of modern medicine."

-Dr. David Gerkin, Knoxville

Invariably, serious or fatal flaws by the health care industry make headlines—amputating a healthy limb, a scribbled prescription that results in a deadly dose of the wrong medication—while more subtle mistakes simply delay proper treatment or cause complications.

Bowers, an otolaryngologist from Chattanooga, agrees

with the report's finding that a lot of the mistakes are system errors. Past experience tells him that the health care industry knows about the errors and is already engaged in a problem-fixing quest. "We have committee meetings monthly in hospitals, looking at every error that we know about. We try to determine, 'Is this the system's problem or is it a personnel problem or is it a legibility problem or the doctor's problem?" "He adds, "I don't think the study revealed anything other than the fact that we've always had those sorts of problems, and it's just more obvious sometimes in health care."

TMA President Dr. J. Chris Fleming agrees. "Health care deals with life and death, many times a day. There is inherent risk in things that are done to make people healthier and to save their life. We try to minimize those risks, and I guess my best answer is, I look forward to the process that will allow us to further decrease the risk."

The NPSF's Manasse says defects in the nation's health care system stem from the fact that medicine is not a standardized process. "When you're manufacturing chocolate bars, you're preparing a standard system that ultimately produces the quality product you want. Within health care, every patient brings all kinds of variations; within treatment you have all kinds of variables as well, and of course you bring in the complications of technology, the whole array of complicated drugs, new kinds of imaging technology, etc., so when you bring all these things together, we need to step back and say, 'What do we need to do to make things more systematic.' "He adds, "There isn't a physician you talk to who wouldn't say they're not concerned about safety."

Former TMA President Dr. David Gerkin stresses that the problem is created by modern medicine itself. "We have so many innovative treatments, everything is so complex, so complicated," he says. "The average patient who's seriously ill has five physicians; here are all these physicians and the complexity of tests and the procedures we do these days; I think modern medicine has become a victim of its own success." Gerkin says the mistakes are not news, but he's certain that "self-righteous politicians" and consumer advocates will make hay over the issue in the coming months.

"First, do no harm . . . "

—Hippocratic oath, modern paraphrase

Gerkin, a Knoxville ophthalmologist, says he would like to see a cohesive effort to fix the problem, not to fix blame. "We need to learn to move forward and learn from those findings," he advises. "We can have uniform criteria, structures that set more regional accountability, more protocols for treatment plans, and we really have to dot the i's and cross the t's; we need to have a spirit of community among health care professionals."

The IOM/NPSF report outlines both current efforts and

future recommendations for reducing the number of medical errors, including:

- Computerized prescriptions.
- Equipment standardization.
- FDA action to address the problem of look-alike, sound-alike drugs.
- Increased communication between doctors and their patients.
 - More funding of safety research.
- Periodic re-examination of health care workers' competency.
- Government-required reporting of medical mistakes. (Tennessee is one of 22 states that mandate data collection of serious medical errors.)
 - Open discussion of medical errors.

Manasse says fixing the problem is the real test. "Overall, the report was very global. When you get down to the nitty-gritty, where the rubber meets the road, you really have to think some of these things through very carefully." He realistically adds that the "fix" will vary, depending on the type and mission of each institution or health care organization.

At Regional Medical Center in Memphis, Chief Medical Officer Dr. Stuart Polly says his hospital routinely does per-

formance evaluation and internal monitoring, but sees this national debate as a chance to improve the quality of health care. "I think generally, it's a move in the right direction, it's a positive thing," he says. "I must say I'm not sure how much of that is realistically accomplishable in the short term; these are long-range objectives. A lot of issues would have to be worked out."

Bowers emphasizes the goal is to be constructive, and not destructive. "We have a wonderful health care system that is leaps and bounds ahead of most everyone else. You find a lot of people flying to this country for expert health care; there must be a reason. That doesn't mean it can't be better. I think how you do it—the mechanism, the best way to improve—that's the big thing."

"We have the finest health care system in the world, the best professionals to deliver that care. But too many families have been the victim of medical errors that are avoidable, mistakes that are preventable, tragedies, therefore, that are unacceptable. Everyone here agrees that our health care system does wonders. but first must do no harm."

—President Bill Clinton

(at a December news conference announcing administrative reaction to and initiatives resulting from the IOM/NPSF study)

"We would like to see as few misadventures as we can."

-Dr. Robert Bowers, Chattanooga

The powers-that-be, from the President on down, say the medical industry needs an overhaul, much like that seen in the air transportation industry. Clinton promises a system-

atic approach to reducing medical errors and the largest investment in the next budget to make it happen: "Years ago, we took that approach in aviation and we've dramatically reduced errors and saved lives. By working together, we can achieve the same goals in the health care industry."

The comparison is echoed

by Manasse. "None of us would tolerate the kind of safety breaches in aviation that we tolerate in the health care system, and we wouldn't tolerate them in making gasoline, or the manufacture of drugs, for that matter. All health professionals have to put safety as the number one agenda item." Continuing the correlation, Manasse also warns that when safety becomes a priority, it will cost money. "(For) every airplane ticket I buy, up to \$12 go to enhance the safety of the aviation system. Are patients going to be willing to pay extra?"

"You can't take the risk out of risk."

—Dr. Henri Manasse, NPSF board chairman

TMA members say they can't argue the accomplishments of aviation or manufacturing, but believe health care is a bit

more unique and complex. And while they welcome a review of problems and solutions, they favor open discussion, not open season on health care.

Taking a cue from peer review protection laws, The Med's Polly says leaders of this movement need to make sure that information obtained in the process is not turned around and used as a weapon against health care professionals. "If you

really want people to participate in an open and candid way, you've got to permit them to be open and candid without creating problems for themselves," he says.

Manasse agrees. "We've got to be engaged in truth-telling. It's difficult because under our current legal system, truth-telling is dangerous. As we build this culture

of safety, we have to come up with a better mousetrap that gives safe harbor without legal penalties to people who report these near-misses. Somehow in the system we have to distinguish incompetence and brazenly negligent acts from the real mistakes." He says that will take some re-thinking at every level of the medical community as well as the legal system. He adds that doctors may need to spend more time briefing their patients on the risks and benefits of their treatment, to prevent future misunderstandings.

That commitment reassures Tennessee's physicians. "'To Err is Human' is a very reasonable title for this report," muses Polly. "The fact is that everybody, I think, is working toward the same goal. What they're proposing here is a sort of unified, concentrated effort. Anything we can do to make it (health care) better is certainly worthwhile . . . we certainly owe it to our patients."

"In general, medicine is very safe, but medicine is also very complex and is not without risk. Any error that harms a patient is one error too many."

Nancy W. Dickey, MD Past Chair of the NPSF Board

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Loss Prevention Case of the Month

Postoperative Care— Inattentive Approach

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 17-year-old unmarried woman who had experienced an entirely uneventful prenatal course began to have labor about a week later than her calculated due date. On examination, her physician, a board certified Ob/ Gyn, found her fetus to be presenting in the breech position. Indications for the surgery were that the woman was nulliparous at the end of her 41st week of gestation, and that the baby was a breech presentation. The presenting part remained high after two hours of good labor, and a cesarean section was recommended and carried out, resulting in the delivery of a 6 lb 7oz female infant with APGAR scores of 10 and 10. About two hours after the delivery the patient began shaking uncontrollably, and quoting from the nursing notes, "demanded something to stop the shaking." Again from the nursing

notes, "easily upset and crying." The physician was notified and ordered blood work for early morning.

The patient's admission WBC count had been 15,300/cu mm with 76% neutrophils, not unusual for this time in gestation, but the results of the work done about three hours after delivery was WBC count 25,200/cu mm with 95% neutrophils (bands 16%). This was postoperative day 1. She continued to complain bitterly of pain, and was described in the nursing notes as "Patient hysterical/crying." The physician

ordered an intravenous broad spectrum antibiotic, Mefoxin. Blood cultures were ordered X 2. Tylenol was given for pain and the shaking. At midnight the temperature was recorded at 101.4°F. The dressing was removed and the wound was said to be "healing well." That morning she was moving about some and seemed to be having less pain, but by the afternoon of day 2 she complained of severe right shoulder and back pain. The Mefoxin was increased from 1 gm every eight hours to 2 gm, and Clindamycin 600 mg every six hours IV was added. In the late afternoon the patient began to complain more of pain and her abdomen was found by the nurses to be "hard and distended." On walking, she expelled some gas from the "stomach" with some relief of pain. Just before midnight the dressing was removed and the skin around the wound was found to be red. Temperature remained 101.2°F. Two hours later the patient vomited, and the dressing was found to be stained with a considerable amount of foul smelling greenish brown liquid. The physician was notified, and ordered more narcotic for the pain. This was the third postoperative day.

The foul smelling drainage continued in increasing amounts. An enema gave "fair results." X-rays of the chest and abdomen were ordered. The patient was made aware of the tests that had been done and the x-rays that had been ordered. She was also told that the physician would come and examine her and discuss the laboratory findings. The patient did not want family called at this time. The progress note indicated that the foul smelling liquid drainage continued and that the abdomen appeared softer but still distended. The x-rays reported some free air under the diaphragm, which was not considered abnormal for this time after surgery. However, the film of the abdomen showed multiple fluid levels, and suggested to the radiologist that intestinal obstruction might be present, but he added that it could be due to a sustained ileus after surgery. Mid-morning stat laboratory results showed WBC count of 15,400/cu mm with 82% neutrophils and 8% bands. The potassium was reported as 3.2 mEq/L.

A progress note by the attending physician, "Open surgical wound and clean," was entered in the record. A consent form was signed and the attending physician took the patient to surgery, opened the wound, and irrigated it with copious amounts of saline and Ringer's solution. The incision was left open to heal by secondary intention. The operative note stated that the fascia was found to be intact except for a small defect at the left extremity of the lower abdominal incision.

The patient continued to vomit following debridement and the attending physician asked for a surgical consultation "in the AM regarding ileus." An attempt was made to rectify the electrolyte imbalance, particularly in view of the persistent hypokalemia. The patient continued to vomit. She was responsive but having severe pain in the abdomen. Late on the fourth postoperative day Gentamycin was added to the intravenous antibiotic regimen.

The surgical consultant reviewed the case in his note and speculated that the hypokalemia was contributing to the ileus. His opinion was that the patient had an intra-abdominal abscess. He suggested an aggressive attempt to correct the potassium level. This was attempted for the next 12 hours. When the surgeon changed the dressing the next morning, greenish liquid and gas were escaping from the abdomen, which suggested the presence of a small bowel fistula with obstruction, and he transferred the patient to the medical center.

At the medical center the patient was explored again, disclosing severe suppurative peritonitis, a small bowel perforation, and some necrosis of the abdominal wall in the region of the initial transverse incision. The perforation was closed and the abdominal wound was packed open to heal secondarily. Early in her stay in the hospital in the medical center, she developed severe adult respiratory distress syndrome and required tracheal intubation for about two months with aggressive medical and nutritional support. She was in the medical center hospital for about five months. She suffered severe neurologic deficits, both motor and sensory, which largely cleared with time and extensive and intensive physical therapy.

A lawsuit was filed charging the attending physician with negligence in injuring the bowel at the time of the cesarean section and failing to detect and treat the injury in a timely manner. This patient had medical expenses of about \$500,000 by the time she was discharged from the medical center hospital. The amount of the settlement is confidential but it can be said that the lawsuit was for an amount far in excess of this physician's policy limits, but settlement was reached within that limit.

Loss Prevention Comments

In cases of this type, time and time again it appears that the highest standard of care was maintained during the operation but the postoperative care was not up to the expected standard. In this case under the expected standard of care the injury to the bowel would have been discovered earlier, perhaps 48 hours earlier. Injury to adjacent structures during an operation is not, in itself, a deviation from the standard of care. With the best of techniques and in the finest of hospitals this type of injury occurs. Usually it is discovered immediately after the fact, and corrective action taken. Even when it is not discovered immediately and when the record supports careful postoperative scrutiny, the complication is found early enough to take remedial action and avoid serious injury to the patient. It is when the record of the postoperative care suggests inattention to detail, failure to listen to the patient's complaints, and slow response to symptoms of the complication, that the physician can be adjudged negligent in a court trial.

In this case, there was suggestive evidence of problems as early as the first postoperative day. The patient was experiencing inordinate pain for the type surgery she had. The nurses talked in their notes of "hysteria and crying" as if to dismiss the patient's complaints. There was some fever, not unusual in the early postoperative period, but the marked elevation of the WBC count and the marked shift to the left in the differential should have been a high index of suspicion that things were not going well in this patient's abdomen. Severe pain persisted and late in the second day there was some redness and edema around the incision and over the pubic area. This should have warranted a more vigorous response from the attending physician. The appearance of foul copious drainage on the third day after the operation and the nursing note that described "gas from the stomach" should have been thoroughly investigated. Was the gas coming from the rectum or the "stomach?" The answer to this question probably would have called for front abdominal exploration. This occurred during heavy antibiotic coverage, and certainly meant that the care givers were dealing with more than a skin infection at the operative site. At this point if there had been an aggressive surgical response, with opening of the incision including the peritoneum, the injury to the small bowel would have been discovered and repaired, leading to recovery with only a few extra days of hospitalization.

It was the delay in exploration of the abdomen that led to the life-threatening complications that occurred later: the adult respiratory distress syndrome, the necrotizing myofascitis of the abdominal wall, the cortical injury both cognitive and motor, and the prolonged hospitalization. One could take the position that this patient is extremely lucky to be alive, and that is true, but it was the failure to observe carefully the postoperative course that threatened her life in the first place. The operation is not over when the patient gets back to her room. It requires the continued attention of the physicians to the complaints and daily progress of the patient. When all that goes well in the postoperative period, then, and only then, is the surgery over.

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Original Contribution

Managed Care Preauthorization Practices: Implications for the Emergency Department

John Proctor, MD

The Issue

Hospital emergency departments (ED) and emergency medicine specialists perform patient care duties under strict federal government regulation, with oversight of ED procedures by the Health Care Financing Administration (HCFA) and the Joint Commission on Accreditation of Healthcare Organizations (JACHO). The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) and the Emergency Medical Treatment and Labor Act (EMTALA) are amendments to the Social

Security Act. These amendments, which underwent interpretive revisions in 1989, 1992 and 1994, provide detailed guidelines for ED operation in Medicare/Medicaid participating hospitals (hereafter referred to as "hospitals"). EMTALA requires EDs to provide "an appropriate medical screening examination" to all patients. Method of payment or patient enrollment in a managed care organization (MCO) must not lead to refusal or delay of the medical screening examination.

MCOs use "gatekeeper" systems to discourage ED utilization by their covered patients. One such barrier to ED use is the "authorization call," which the MCO may require from ED personnel as a condition for reimbursement. Many MCOs

EXECUTIVE SUMMARY

By law, hospitals must conduct appropriate medical screenings for all patients seeking emergency department (ED) treatment, regardless of the patient's ability to pay, managed care organizations (MCOs) attempt to limit ED care by requiring pre-authorization for payment and by denying reimbursement for both emergency screening and appropriate treatment. Consequently, patients can mistakenly believe they are being denied evaluation and treatment. EDs can be burdened with unrecoverable costs, yet denial of service is both unethical and illegal—resulting in significant, unfavorable consequences.

Proposed solutions include (1) improve hospital executives' understanding of ED costs and regulations, (2) increase collaboration between EDs and MCOs, and (3) enforce "prudent layperson" legislation, which provides for patients to receive reimbursed emergency care, without pre-authorization, if a "prudent layperson" would consider the individual's condition to be potentially life- or limb-threatening.

misconstrue or misinterpret this call as authorization for ED treatment, rather than for reimbursement. Herein lies the dilemma for ED physician and administrative managers. These managers are ethically and legally obligated to treat all patients comparably regardless of financial status, but must maintain a cooperative relationship with MCOs for financial viability.

Background

U.S. health care is a \$1-trillion industry, which represents 12% of U.S. gross do-

mestic product. In recent years, health care cost and delivery represent a paramount issue. After President Bill Clinton's health care reform package failed, economic reform accelerated—primarily through expanded managed care. On January 1, 1994, the State of Tennessee withdrew from the Medicaid program. It implemented TennCare, a new health care plan for Tennessee's poor and uninsured citizens, the so-called "working poor." TennCare converted Medicaid's traditional discounted fee-for-service reimbursement practice to a capitated system of reimbursement, which was administered by 12 MCOs either in existence or created at the advent of TennCare. As a Medicaid waiver plan approved by President Clinton, TennCare receives federal matching dollars, which provide approximately two-thirds of budgeted funds. In fiscal year 1997, health and social services represented 39% of the state's total budget of \$13.9 billion. The TennCare Bureau administers the TennCare program and designated \$2 billion of its \$3.3 billion 1997 fiscal year budget for Tenn-

From the Emergency Department, Southern Hills Medical Center, Nashville. Dr. Proctor is president of the Tennessee College of Emergency Physicians.

Reprint requests to 391 Wallace Road, Nashville, TN 37211 (Dr. Proctor).

TABLE 1
TENNCARE SERVICES CONSTITUTES APPROXIMATELY
TWO-THIRDS OF ESTIMATED FISCAL 1997 BUDGET

Contributor	Amount (in 000's)	% of Total
State	\$ 989,647	30.3
Federal	2,233,592	68.4
Other	44,000	1.3
Total	\$3,267,239	100
Division		
TennCare Services	\$2,054,900	63
Long-term Care	820,458	25
Waiver and Crossover Service	s 274,811	8.4
Administration	117,070	3.6
Total	\$3,267,239	100

Care services (Table 1). About 1.2 million, or 22.6%, of Tennesseans qualified as eligible recipients for TennCare in 1997. There were 1,212,051 enrollees as of January 31, 1998. The combined financial data for participating MCOs demonstrates a net income loss of \$38.5 million during 1995, the year of TennCare's inception. The following year, net income rose to a positive \$8.4 million and to \$21.5 million in 1997. Projected 1998 combined net income was \$18.4 million.²

The Emergency Department Situation: In 1997, Americans sought ED care approximately 100 million times. EDs typically admit between 10% and 25% of patients, and account for 40% to 60% of the hospital's inpatient admissions. The ED traditionally represented the "health care safety net," providing care for the indigent, homeless, and all others with no alternative access to health care. In a fee-for-service environment, cost shifting allowed higher prices for patients with commercial and other third-party insurance plans to partially offset the cost of indigent ED care. Managed care and capitation removed cost shifting. EDs are under federal guidelines, which insist that reimbursement issues be ignored during the triage and medical screening process.

Triage: Triage is intended to sort, or prioritize, patients relative to the apparent severity of their condition. MCOs traditionally misinterpret the ED triage process as a means of definitively determining the nature and severity of the patient's condition. If the condition is "non-urgent," the MCO then seeks to direct the patient away from the ED to decrease ED utilization. The MCO gatekeeper, or primary care provider, often has a financial disincentive to authorize ED use. The gatekeeper often seeks to impose a barrier to ED use by demanding that he be contacted following triage and prior to treatment. The penalty levied against EDs for failure to meet this demand is automatic "denial of reimbursement" for any ED care subsequently rendered to that patient. If an ED attempts to meet this demand, several negative outcomes may

occur. The ED waiting room becomes overcrowded with patients awaiting return calls to ED registration staff. The primary care physician (PCP) may be unavailable or impossible to locate. The patient may become acutely ill, either while in the waiting area or after leaving in frustration. Certain conditions that possess a defined "window to treatment" time may no longer be treatable. Angry or disgruntled patients may become disruptive. Finally, the hospital and physician may incur heavy fines if the practice leads to a bad patient outcome or is reported to HCFA.

The triage examination is not adequate to rule out an emergency: Numerous studies demonstrate the inability of triage, either physically or by telephone, to adequately disprove that an emergency medical condition exists. Studies comparing various categories of health care workers (nurses, resident physicians, and attending physicians) demonstrate that, after performing a standard triage patient assessment, different opinions emerge regarding the potential severity of an individual patient's condition. Two cases of telephone triage, which involved MCO-sponsored standardized nurse triage protocols, recently were settled for undisclosed amounts.³ HCFA released a letter in 1995 summarizing its position on this issue: A hospital which triages a patient, then calls the patient's managed care plan for approval to further screen/ treat, followed by discharge and referral to the managed care plan, risks a violation of the regulation for failure to provide an appropriate medical screening examination and/or a delay in treatment.

The medical screening examination: The next area of controversy relative to a managed care patient's ED use is the definition of an appropriate medical screening examination. The most common MCO practice is to retrospectively review ED medical records to determine if the patient met that MCO's criteria for ED use. Each MCO generates a list and associated billing code for conditions it considers to be an emergency. Conditions not on the list are generally not reimbursed or are reimbursed at a heavily discounted rate. MCOs view the medical screening examination as a moment in time when a definitive determination is made that the patient is not suffering an emergency. At that point, the MCO asserts that no further ED care shall be rendered without its authorization. Many MCOs mistakenly believe that the triage nurse without a physician's involvement can perform the medical screening examination.

This MCO practice creates three dilemmas for the ED. First, ED specialists know that many emergency conditions are insidious at their onset. Examples include leaking aneurysms, which cause headaches, chest pain, or abdominal pain of variable intensities; strokes; appendicitis; and infections. A medical screening examination is a process, not an event, and it may require time and resources such as blood studies, x-rays, CT scans, or surgical procedures. According to HCFA:

An appropriate medical screening examination means that the hospital will render care similar to that provided to any patient under similar circumstances (i.e., a different level of care must not exist based on payment status, race, national origin). A screening examination is not an isolated event; it is an ongoing process.⁴

Second, HCFA creates confusion by referring to the performance of medical screening by "qualified medical personnel." This statement prompted some hospitals, in an effort to reduce losses incurred from MCO denials, to create ED medical screening procedures to be performed by the ED triage nurse simultaneous with the triage screening examination. HCFA made a conflicting statement in 1991: The issue of certifying medical stability arises after it has been determined that the patient has an emergency medical condition. Then, only a physician can determine whether the emergency condition has been stabilized.

While HCFA allows hospitals to empower health care providers other than physicians to perform ED medical screening, HCFA explicitly states that the facility assumes liability for whomever is granted this decision-making authority. Triage nurses either do not recognize the breadth of this authority or are rightfully wary of it. Although MCOs commonly encourage triage nurses to "send them to my office," HCFA disallows this practice but does not mandate fair reimbursement for the medical screening process: It is not acceptable to refer individuals who have not been medically screened to a location outside the hospital for their screening examinations.

The third dilemma imposed by MCO reluctance to reimburse for ED care is an ethical dilemma. Patients come to EDs for many different reasons. One study determined that 42% of patients had overtly urgent problems, while 26% had "semi-urgent" problems, which required detailed physician evaluation and possibly diagnostic studies to rule out a lifeor limb-threatening condition. The remaining 32% had nonurgent reasons.5 Patients seek ED non-urgent care for a variety of reasons. Some are fearful for themselves or their child and wish to know with certainty that they are medically safe. Some patients do not understand the guidelines of their health care plans. A study at Vanderbilt University Medical Center ED demonstrated that over one-half of non-urgent TennCare patients entering the ED either did not understand the requirement to contact their PCP in advance, or attempted to do so unsucessfully. Some patients have language barriers and cannot obtain information by telephone. In any circumstance, the ED physician most often feels an obligation to treat. As noted earlier, the responsibilities imposed by HCFA's medical screening definition generally leave no alternative to a comprehensive examination. For example, if a medical screening examination determined that a non-urgent ear infection, rather than meningitis, caused a child's fever,

the ED physician would nevertheless be compelled to prescribe an antibiotic for treatment.

Penalties for noncompliance with regulations: In 1997 HCFA cited EDs for collusion of the triage and medical screening examinations more often than for any other COBRA violation. Citations may result in a fine of up to \$50,000 per occurrence to both the hospital and the physician. The physician responsibility falls to the ED medical director if no physician made contact with the patient prior to the patient's departure from the ED. COBRA violation fines are not covered by medical malpractice policies. A HCFA citation also leads to review and possible removal of Medicare privileges, which would result in financial distress for the organization.

The negative publicity generated by a single occurrence of poor patient outcome offsets any projected cost savings from "triaging out" ED patients. *American Medical News* recently published an account of a woman who left the ED waiting room after failing to receive a return call for MCO authorization, and subsequently died. In Knoxville, Tennessee last year, a hospital was cited following the death of an infant diverted by ambulance to another hospital. Notwithstanding the physician's ethical duty to treat each patient, such a poor outcome devastates a hospital's reputation for many years. The financial impact of such negative publicity is difficult to quantify.

Proposed Solutions

To capitalize on this issue while protecting the fundamental right of potentially ill and injured patients to receive expert ED care, the approach to ED cost analysis and the ED's relationships with MCO medical directors and administrators must be transformed to create fair reimbursement practices.

The cost of ED care: Health care delivery systems, as well as the general public, consider ED care expensive. This results from the aforementioned practice of cost shifting and the allocation of fixed hospital costs to the ED's financial statement. ED costs are mostly fixed costs due to the need to maintain readiness for unpredictable patient volumes and levels of acuity. The variable cost to treat a non-urgent condition in the ED is comparable to that of an office visit to a primary care physician. Hospital CEOs and CFOs must be apprised of the true economic dynamics of the ED: namely, it has low variable costs, and is a significant contributor to revenue by generating 40% to 60% of all hospital admissions and significant percentages of hospital diagnostic and ancillary testing.

Collaboration with MCOs: Many MCO medical directors and administrators welcome the opportunity to discuss ED issues with the providers. EDs must impress upon MCOs their ability to use evidence-based clinical pathways to reduce unnecessary diagnostic testing. Where available, the MCO's electronic records may be linked with patient in-

formation in the ED. This potentially provides the emergency medicine specialist detailed historic information about the patient, allowing less redundancy of testing, continuity of patient care, enhanced follow-up information for the MCO, and increased patient satisfaction. The MCOs may be more attentive in light of the current negative public opinion of managed care and their ED practices.⁸ For example, the Arizona Supreme Court upheld a lower court's

FIGURE 2

THE PRUDENT LAYPERSON EMERGENCY BILL SENATE BILL 2381, FILED FOR INTRODUCTION 1/22/98 SENATOR COOPER

AN ACT to amend Tennessee Code Annotated, Section 56-7-2355, relative to the definition of emergency services.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. Tennessee Code Annotated, Section 56-7-2355, is amended by deleting subsection (a)(1) in its entirety and by substituting instead the following:

- (1) "Emergency medical condition" means a medical condition that manifests itself by symptoms of sufficient severity, including severe pain, that a prudent layperson, who possesses an average knowledge of health and medicine, could reasonably expect the absence of immediate medical attention to potentially result in:
 - (A) Placing the person's health in serious jeopardy;
 - (B) Serious impairment to bodily functions; or
 - (C) Serious dysfunction of any bodily organ or part.

SECTION 2. This act shall take effect upon becoming a law, the public welfare requiring it.

ruling to allow medical malpractice proceedings against an MCO medical director. The medical director denied authorization for a gallbladder operation, despite the opposing opinion of the patient's treating physician. There are numerous examples of MCOs being held accountable for medical decision-making.

Legislative issues: In 1998, the "prudent layperson" definition of an emergency medical condition passed the Tennessee legislature (Fig. 1). Similar language is included in the Balanced Budge Act of 1997, which applies to all Medicare and Medicaid programs, including those of waiver states such as Tennessee. By establishing that a prudent, or reasonable, layperson has the right to seek emergency care when faced with a potentially life- or limb-threatening condition, this legislation provides EDs and their patients the best protection against unfair MCO denials. The President may have captured the nation's feeling on this issue in his 1998 State of the Union address when he stated: "Americans have the right to emergency care—wherever and whenever they need it." Tennessee was the 16th state to pass "prudent layperson" emergency medical condition legislation. Proposed federal legislation, such as the Norwood-Dingell bill, seeks to establish "prudent layperson" emergency condition protection for all Americans.

References

- Tennessee General Assembly Senate and House Finance, Ways and Means Committees, 1996-97 Fact Book.
- Consultant's Report on the Tennessee Patient Advocacy Act of 1997. Austin, TX, Research and Planning Consultants, Inc., February 19, 1998.
 - 3. Veach M: Nurse counseling phone lines: triage or trespass? AM News, March 2, 1998
- 4. Interpretive Guidelines—Responsibilities of Medicare Participating Hospitals in Emergency Cases. US Department of Commerce Clearing House, Inc., 1995.
- Williams RM: The costs of visits to emergency departments. N Engl J Med 334:642-658, 1996.
 Young, et al: Access to emergency care under TennCare: Do patients understand the system?
- Ann Emerg Med 30:281-285, 1997.

 7. Williams P.M. Distribution of emergency department costs. App. Emerg Med 28:671-676, 1997.
- 7. Williams RM. Distribution of emergency department costs. Ann Emerg Med 28:671-676, 1996. 8. Peeno L: What is the value of a voice? US News and World Report, March 9, 1998, pp 40-46.

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Department of Health Report

The Hepatitis C Epidemic in the Hemophilia Community

Lawrence Moffatt, MD

Knowledge and a better understanding of the extent of disease due to hepatitis, and the various agents responsible for those illnesses, have expanded drastically during the last three decades. The challenges to improve treatment and prevention continue to mount commensurately. During these years, identification of responsible viruses includes types A, B, C, D, E, and G. This article is intended to review some of the background leading to our current understanding of hepatitis C and its impact in the hemophilia community.

After viruses responsible for hepatitis A and B were described in the 1960 to 1970 era, it was learned that a large proportion of acute and chronic hepatitis could not be attributed to either of those viruses and that category was termed non-A, non-B hepatitis. After 1989, when the genome of the recently identified hepatitis C virus (HCV) was cloned, a new entity was described.

After serologic testing for anti-HCV antibodies became available, universal donor screening for HCV has provided blood products nearly risk-free for transfusion/infusion transfer of the virus to recipients. Even so, an estimated risk of 1:1,000 to 1:100,000 exists for recipients of blood or any of its derivatives, most likely due to recent acquisition of HCV by a donor and prior to the development of anti-HCV antibodies (the "window period").

False-negative testing results have also been attributable to HCV sequestered at sites other than the blood stream (liver or peripheral blood mononuclear cells), or that viremia may be intermittent, or that the number of copies of the HCV RNA could be below the limit of detection or other technical problems with the test.

The genetic features of HCV that distinguish it from the other known hepatitis viruses explain some of the difficulties in management of the illness as well as vaccine development. Although the C virus is closely related to the other hepatitis viruses (Flaviviruses and Pestiviruses), its diversity is sufficient for C virus to be classified as a separate genus.

Over decades and centuries, the degree of HCV diversity has evolved into distinct genotypes, and sequence homology

From the Tennessee Department of Health, Nashville, Dr. Moffatt is the health officer for Washington County.

between the genotypes is less than 80%. Six genotypes and numerous subtypes of HCV have been categorized.

This genetic diversity of HCV may allow it to escape host immune surveillance, thereby resulting in viral persistence and a lack of protective immunity. The heterogeneity of HCV is of great significance in the disease process, and presents obstacles in the development of a conventional vaccine. It also allows the virus to avoid eradication by the host's immune system and affects the completeness of the response to antiviral therapy.

Of the six major genotypes of HCV that have been identified, more than 50 subtypes are described. The evolution of the genotypes has been influenced by several factors, including a distinct geographic distribution of the HCV genotypes:

- Genotype I most common (60% to 70% of isolates in the United States and Europe)
- Genotype II less commonly occurring in the United States
- Genotype III occurring in India, the Far East and Australia
- Genotype IV most commonly in Africa and Middle East
 - Genotype V most common in South Africa
 - Genotype VI most common in Hong Kong

The HCV genotype and geographical distribution appear to relate to the manifestation of hepatitis C disease. For example, both the initial and the biochemical response are lower with Genotype I, found mostly in the United States. Thus, it is the diversity of the HCV replication that makes the virus an elusive culprit and thwarts efforts to develop an effective vaccine.

The magnitude of the HCV complexities is more acutely realized in hemophilia treatment centers, where clotting factors used to treat hemophiliac bleeding episodes are derived from a pooled blood supply representing as many as 20,000 donors. Thus a product recipient has a potential exposure to some 15,000 or more donors' blood with a single treated bleeding episode. Some 60% to 80% of hemophilia patients treated with blood products 20 to 30 years ago (prior to HCV

(Continued on page 65)

Vanderbilt Morning Report

A Patient With an Acute Viral Syndrome

Case Report

The patient is a 34-year-old homosexual white man with a one-week history of nausea, vomiting, loose stools, fever, and a rash. The gastrointestinal symptoms developed abruptly, in association with fatigue, myalgias, arthralgias, generalized headache, and odynophagia. Approximately four days earlier, the patient noted a rash consisting of small, discrete, blanching erythematous macules and papules on his face, upper chest, back, and abdomen, as well as a small macule on his left palm and a painless macule on his penis.

His past medical history noted chronic active psoriasis of the scalp, elbows, and genitalia, and he had a history of serologically diagnosed hepatitis A and B infections. He was actively using alcohol, cocaine, and tobacco, and had a distant history of intravenous drug abuse. He had engaged in unprotected, homosexual ano-genital intercourse two weeks prior to presentation.

Physical examination revealed an ill-appearing man with a temperature was 101°F, supine blood pressure 97/57 mm Hg, heart rate 86/min, and respiratory rate 20/min. Head examination demonstrated a psoriatic rash involving the scalp and posterior auricular regions. Sclerae were not icteric. Two small, shallow, erythematous ulcers were seen in the posterior oral pharynx, along with tonsillar edema. Lymph node survey revealed tender adenopathy of the cervical, axillary, epitrochlear, and inguinal regions. Chest auscultation was unremarkable and abdominal examination revealed diffuse mild tenderness, active bowel sounds, and no hepatosplenomegaly. A maculopapular erythematous eruption of the face, chest, back, and abdomen was noted, as well as a discrete macule on the glans penis. Typical scaly psoriatic eruptions were also present on the extensor surfaces of both elbows, and on the shaft and glans of the penis. Musculoskeletal and neurologic examinations were normal.

Laboratory evaluation disclosed a leukocyte count of 2,500/cu mm (normal 4,000 to 11,000). WBC count differential included 74% polymorphonuclear leukocytes, 21% lymphocytes, and 5% monocytes. His hematocrit was 46% (normal 42% to 50%) and his platelet count was 59,000/cu mm (normal 150,000 to 400,000). Serum electrolytes were normal; total bilirubin

Prepared by David M. Aronoff, MD, Hugh J. Morgan chief medical resident, Vanderbilt University Medical Center, Nashville. Edited by Jason D. Morrow, MD, Vanderbilt University Medical Center, Nashville. was 0.9 mg/dl (normal 0.2 to 1.2), AST 277 U/L (normal 4 to 40), ALT 210 U/L (normal 4 to 40), LDH 1440 U/L (normal 310 to 620), alkaline phosphatase 61 U/L (normal 40 to 110), and serum albumin was 3.0 gm/dl (normal 3.5 to 5.0). Chest roentgenogram was unremarkable.

Further serologic testing documented a negative rapid plasma reagin (RPR) test for syphilis and negative antibodies for both hepatitis C and HIV. Because acute HIV infection was suspected, a quantitative viral load for HIV RNA was performed, which was positive for >750,000 copies/ml of plasma.

Discussion

This patient had an entity known as the acute HIV syndrome. Symptoms of acute HIV infection occur in 40% to 90% of newly infected individuals. The most common symptoms of early HIV infection include fever (80% to 90%), fatigue (70% to 90%), rash (40% to 80%), headache (32% to 70%), lymphadenopathy (40% to 70%), pharyngitis (50% to 70%), and myalgias or arthralgias (50% to 70%). Other findings can include nausea, vomiting, diarrhea, night sweats, aseptic meningitis, oral ulcers, genital ulcers, thrombocytopenia, leukopenia, and elevated hepatic enzyme levels.1 This patient acutely developed most of these signs and symptoms one week following unprotected sexual activity. Characteristically the onset of illness is within days to weeks of HIV inoculation.² The chronically active psoriatic lesion on his penis likely contributed to his risk of acquiring HIV from unprotected sex.

Unfortunately, the diagnosis of acute HIV syndrome is easily missed because of a low index of suspicion on the part of the health care provider. As many as 75% of symptomatic acute HIV infections may be misdiagnosed.² The differential diagnosis includes acute viral infections other than HIV, such as cytomegalovirus, Epstein-Barr virus, influenza virus, and herpes simplex virus infections.² Viral hepatitis, rubella, secondary syphilis, toxoplasmosis, brucellosis, and drug reactions can all mimic acute HIV infection as well.

The diagnosis of acute HIV infection is usually made in the presence of a negative serologic test for the virus. Serologic tests for HIV first become positive approximately three to four weeks after infection. The quantitative viral load test for plasma HIV-1 RNA by polymerase chain reaction generally becomes positive within 11 days of inoculation. Although low-level viral loads (less than 2,000 copies per ml)

may rarely occur in uninfected individuals, viral loads above 50,000 copies per ml (high titer) are highly specific.² If viral RNA testing is unavailable, a serum or plasma p24 antigen test may be used to detect viral particles before serologic tests become positive.

Early therapy for newly diagnosed patients has been advocated by those treating HIV-infected individuals.¹ Although treatment recommendations change rapidly, current guidelines suggest initial therapy with a combination of three antiviral agents. Popular regimens include two nucleoside reverse transcriptase inhibitors in combination with a single protease inhibitor. More information regarding current HIV treatment guidelines is available from the HIV/AIDS Treatment Information Service on the internet at http://www.hivatis.org. \(\sigma\)

References

- 1 Kahn JO, Walker BD. Acute human immunodeficiency virus type I infection. N Engl J Med 339:33-39, 1998
- 2 Perlmutter BL, Glaser JB, Oyugi SO How to recognize and treat acute HIV syndrome Am Fam Physician 60:535-546, 1999.

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screening capabilities) are now being seen with the end stages of liver disease resulting from the HCV. HCV cirrhosis is currently the leading indication for liver transplantation in the United States. Even if suitable donor organs and surgical transplants were available, those recipients run a considerable risk of viral damage to the new liver because of lack of host immunity after the initial infection, and the therapeutic immunosuppression concurrent with transplant care.

Improvements in medical management of hepatitis C dis-

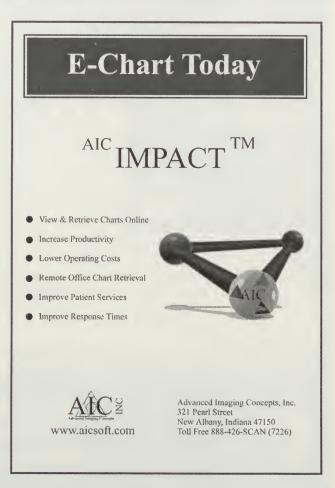
ease have been accomplished with addition of ribavirin to the interferon regimen and more improvements can be expected with further pursuit of that goal, as well as continued efforts toward an effective vaccine. Meanwhile, physicians caring for hemophiliacs now face new challenges that ironically and unexpectedly were incurred by the use of the single most effective and otherwise successful management of bleeding problems—the clotting factors derived from blood donors, some of whom were unknowingly HCV infected.

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FUTURE 50

TMA Alliance Report

Medical Alliance Month

In March we celebrate the work of the Alliance, past and present. Our Alliance was started in 1927 and was first called the Women's Auxiliary to the Tennessee State Medical Association. Its purpose was to extend the voice of medicine beyond its traditional roles. This organization, now called the Tennessee Medical Association Alliance, continues this mission of carrying your message to communities across the state.

Alliance members are keenly aware of the heart of medicine. As physician's spouses we share your hearts with your work. It has been said that medicine is a jealous mistress and most spouses can testify to the truth of that. We see you in anguish when your patients don't do well, we see you frustrated when managed care denies patients the care they need, and we see your empty chair at dinner as you work to relieve the suffering of a patient and bring comfort to the family. As your life partners, Alliance members are able to put the face and hands on that heart as we work to influence and educate our neighbors and friends on important health issues.

We work as ambassadors carrying the message of good health. We teach children ways to resolve conflict in their lives without resorting to violent behavior. We guarantee that there will be safe shelter and assistance for victims of violence and abuse. We increase awareness of the need for organ donors. We raise funds to support medical schools, their students, and their research, and we make our voices heard to lawmakers as we lobby to protect the rights of patients. We are changing the statistics, one person at a time.

Since its formation the Alliance has enjoyed many victories. Countless numbers have been influenced and affected by the health education that has been spread. Through our partnership with TMA and your own Dr. Robert Sanders, our efforts led to the passage of the nation's first Child Passenger Protection Act of 1977. We joined forces again in 1993, resulting in the passage of a statewide bicycle helmet law in 1994. We are very proud of our achievements, but there is so much more that we can accomplish.

Our history proves us to be a powerful force when we join hands and speak with one voice. Please help us celebrate the work of the TMAA by thanking your spouses for the work they are doing in your communities to put the hands and faces on the hearts that we know so well. If your spouse is not a member of TMAA, please let them know how much we would welcome their support. Even if there is not an alliance in your county, we would love to start one there, or to have your spouse as a member-at-large.

Marcia Young
TMAA President-Elect

In Memoriam

Earl P. Bowerman, MD, age 93. Died November 26, 1999. Graduate of University of Rochester School of Medicine. Member of Memphis-Shelby County Medical Society.

Charles B. Smith, MD, age 76. Died December 13, 1999. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

Victor Villeneuve, MD, age 61. Died December 5, 1999. Graduate of University of Ottawa (Ontario) School of Medicine. Member of Greene County Medical Society.

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Bradley County Medical Society
Conrad C. Manayan, DO, Cleveland

Consolidated Medical Assembly of West Tennessee Sean T. Neel, MD, Jackson

Knoxville Academy of Medicine Gregory V. Brewer, MD, Knoxville Chang-Wen Chen, MD, Knoxville Philip B. Stanley, DO, Knoxville Christopher T. Taylor, MD, Knoxville

Marshall County Medical Society Michael J. Davidson, DO, Lewisburg

Memphis-Shelby County Medical Society F. Gwen Beard, MD, Memphis Frederick A. Boop, MD, Memphis Russell A. Carter, MD, Memphis David A. Gubin, MD, Memphis Daniel L. Menkes, MD, Memphis Shands W. Orman, MD, Memphis Melvin P. Payne III, MD, Memphis Brenda J. Richardson, MD, Memphis Ronald G. Stockstill, MD, Memphis

Nashville Academy of Medicine Martyn J. Cavallo, MD, Nashville David K. DeBoer, MD, Nashville Steven G. McLaughlin, MD, Madison

Putnam County Medical Society Audrey K. Tolbert, MD, Cookeville

Stones River Academy of Medicine Marynelle J. Klumpe, MD, Murfreesboro Gerald M. Thorburn, MD, Murfreesboro

Sullivan County Medical Society Reid B. Blackwelder, MD, Kingsport Scott R. Fowler, MD, Kingsport Carri B. Homoky, MD, Kingsport

Personal News

Billy J. Allen, MD, Ooltewah, was selected the Tennessee Academy of Family Physicians' 1999 Family Physician of the Year.

Burgin H. Wood, MD, LaFollette, was selected the Tennessee Rural Health Association's 1999 Rural Health Practitioner of the Year.

TMA Board of Trustees Meeting Minutes

October 16, 1999

The following is a summary of actions taken by the Board of Trustees of the Tennessee Medical Association at its regular fourth quarter meeting held in Franklin, Tennessee.

THE BOARD:

Approval of Minutes. Approved the minutes as amended of the third quarter Board meeting held July 10-11, 1999. Approved the minutes and confirmed the actions of the Executive Committee conference call held September 8, 1999.

Xantus Creditors Committee. Received a report on the latest activities and developments of the Xantus receivership.

TennCare Task Force. Appointed the following physicians to serve on the TennCare Task Force who would be asked to author viable reform suggestions for the overhauling of TennCare: Drs. Joel R. Locke, Franklin; James K. Anderson, Kingston Springs; H. Victor Braren, Nashville; Steven G. Flatt, Cookeville; John J. Ingram III, Maryville; David H. Knott, Memphis; John W. Lacey III, Knoxville; Theresa T. Morrison, Fayetteville; Robert C. Patton, Kingsport; Wiley T. Robinson, Memphis; B. J. Smith, Dickson; Iris Snider, Athens; Jesse C. Woodall Jr., Memphis, and a representative of the TMGMA.

Board of Medical Examiners. Directed the Legislative Committee to investigate the possibility of merging the Board of Osteopathic Physicians with the Board of Medical Examiners and to report their findings to the full Board in January.

Listening Tour and Managed Care Initiative. Received an update on the plans for the statewide Listening Tour and Managed Care Initiative.

Quarterly Reports. Received quarterly reports from IMPACT, TN Delegation to the AMA, SVMIC, TMA Alliance, TMA Physician Services, TMF, TMEF, TN Council on Medical Specialty Societies, TN Physicians' Quality Verification Organization, and the Young Physician Section.

Committee Reports. Accepted the written report from the Practice Management and Managed Care Committee. Agreed to continue to encourage all physicians and state agencies to participate in the TPQVO.

Accepted the resolution entitled "Use of Nurse Practitioners and Physician Assistants" submitted by the Committee on Rural Physicians, and made it Board policy.

Accepted the recommendation from the Committee on Governmental Medical Services and Third Party Payors to appoint Dr. Mary Headrick to represent the TMA on the TN Department of Commerce and Insurance Administrative Task Force.

Tobacco Control Efforts. Appointed the Committee on Rural Physicians to serve as a task force to oversee the continued drafting and implementation of the Tennessee Tobacco Use Prevention and Reduction Plan.

American Association of Clinical Endocrinologists. Agreed to urge the AMAP Governing Board to adopt the position that AMAP Diabetes Measurement Set, specific to performing the dilated funduscopic examination for patients with diabetic retinopathy, be performed only by an MD or DO.

TMA Bank. Supported that TMA Physician Services, Inc. conduct a survey that would allow the membership to express its thoughts, interest, and support of a joint venture to create a TMA Bank.

Third Quarter Financial Statement. Reviewed and accepted the third quarter financial statement as presented.

2000 Budget. Approved the tentative budget for 2000 as presented, and directed the Executive Committee to review and approve a revised budget at its next meeting.

Internet Economy. Directed staff to contact medical associations and others concerning their experience and activity to develop association e-commerce.

THE EXECUTIVE COMMITTEE, at its September 8 meeting, took the following actions:

Medicaid Managed Care Forum. Agreed to officially approve the sponsorship by the TMA of the Medicaid Managed Care Forum whose program had been revised to include Drs. Barrett Rosen, Robert Herring, and Vic Braren.

Futures Task Force. Approved the format of the Listening Tour provided the total project cost would be in the range of \$15,000.

TMA 2000 Sponsorship Program. Agreed to the concept of a patron sponsor program for TMA meetings and activities.

Task Force to Study Program to Replace TennCare. Named Dr. J. Fred Ralston Jr. as acting chairman of the committee and agreed to ask the Board, in October, to appoint the full task force.

Pooling of Membership Dues. Approved the concept of pooling membership dues of the metro societies and directed staff to devise a plan on how the implementation would occur and if the plan would be feasible. □



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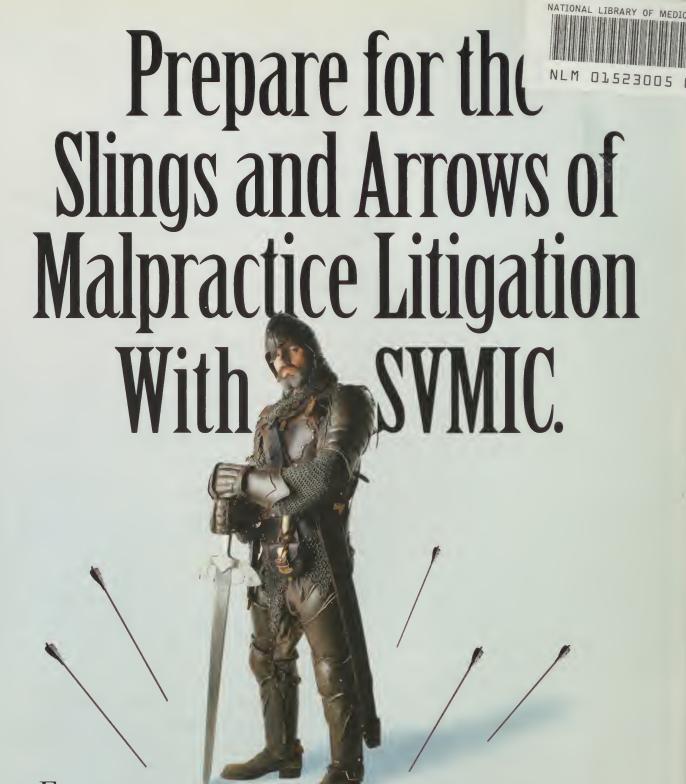
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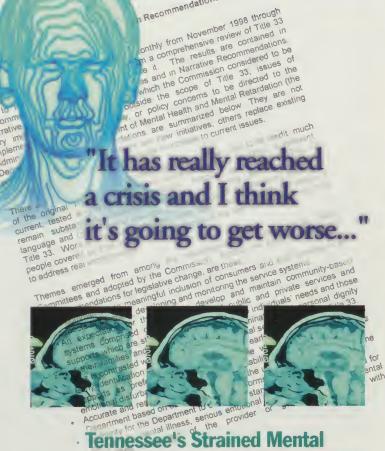
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Tennessee's Mental Health Services in Crisis

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President's Comments



James Chris Fleming, MD

Buying-Off the Tobacco Problem

We in the United States as a whole, as well as in the state of Tennessee, find ourselves in an interesting predicament. We are trying to decide the best way, the most effective way, to spend the money received from the tobacco lawsuit settlement. That a tobacco company is able to make a financial deal and "get off the hook" astounds me. As we all know, the nicotine in tobacco is an addictive substance. Its long-term use deteriorates the quality of life of its users, as well as shortening their life span. As a profession, we need to continue working toward our goal of eradicating its use.

The pragmatic side of this issue is that each state will receive a share of the monetary settlement. Tennessee is due to receive \$215 million next year from the tobacco industry. Over the next 25 years, the money may amount to over \$4.8 billion to our state. This is an incredible amount of money, and it will be raised by increasing the price of tobacco products. Astonishingly, the tobacco industry is shifting this cost to the tobacco users, that is, to the tobacco victims.

The Tennessee Medical Association, in coalition with other statewide heath organizations, is asking the general assembly to put about half of this settlement into a comprehensive tobacco prevention/control program. Other members of the coalition include the American Cancer Society, the American Heart Association, and the American Lung Association. It is imperative that we as physicians be very vocal within our state as to how we feel this money should be spent. Prevention programs will decrease tobacco use over time, and may eventually save future generations from the adverse health effects of this addictive substance. Wouldn't it be fitting if there were no tobacco addicts to raise the \$4.8 billion?

I have great concern that the state legislature will take this newly acquired money to "band-aid" the state budgetary shortfalls. Tobacco payoff money needs to address the problems tobacco has created. It is time for us to let our legislators know where we stand on this issue.

James C Flenren Mb

Editorials



John B. Thomison, MD

The New Millennium . . . And We're Still Here

By now you have a few months of the new millennium under you belt, and have found that the dreaded—or boring, depending—Y2K is nothing more than another yawner. The world as we know it did not vanish into—I was about to say chaos, but the known world has been there for many millennia—into whatever it was we were supposed to vanish into. What that was depended on who you asked. Like apparently the overwhelming majority of the world's population, I am precisely where I expected to be, as I predicted in these pages three months ago I would be, which is the same place I have been, except for periodic planned excursions elsewhere, for the past 44 years. Many thoughtful people who studied the situation carefully—and there were some—are dumbfounded. I did not study the situation carefully, and I am not. I hesitate to derive a generalization from that observation, but it does suggest their not having been able to see the woods for the trees.

In any case, here we are, generally none the worse for wear except for having to pay for and clean up after the vast worldwide celebration of the first sunrise after what some had predicted was the last sunset of all. I have never had much use for the calendar except to know what day it is and to plan ahead, and, as I have often observed before, I suspect its popularity otherwise is largely a fabrication of commercial interests. Certainly the naming of decades is nonsense, because no trend is ever confined by the calendar. The first decade to enter my personal ken was "The Roaring Twenties," which started in 1918 with the end of the Great War, a couple of years before I was born, and ended in 1929 with the Market Crash. To some—and to popular culture—that decade meant bathtub gin and speakeasies, to others the roaring economy. Naming a millennium is fraught with even more hazard. I haven't seen anybody try—yet.

Certainly there have been vast changes in all areas during even the last century, some helpful and some otherwise. Some are iffy. I have seen comments that the millennium was drenched in blood, but which one wasn't? I'd say it was just as drenched in alcohol, except that it has no proprietary grasp on drunkenness Well, then, let's try cigarette smoke. I'm almost certain that no other century has been so enshrouded in and permeated with an acrid blue haze of human origin. Sir Walter's transferred gift from the more to the less benighted portions of the human race was a boon that insidiously quenched hosts of personal lights in the ensuing centuries. But of all those who ever tried it, among which number I am counted, along with more than 90% of my friends and acquaintances, very few ever made a derogatory remark about its pleasures. And I'm speaking about the days before the surgeon general pontificated that cigarette smoking could be hazardous to your health, and said so on every pack. Big deal.

Now, despite my self-imposed 50 year proscription of the habit, to be honest I feel obligated to make a couple of observations—or rather admissions, I guess. The first is that cigarette smoking is fun. It just plain is. I know all about the addictive properties of nicotine, both professionally and personally. But the act of smoking itself, and the camaraderie it both enhances and induces, has a strong appeal quite apart from any physiologic properties. All I can say is, if you ain't tried it don't knock it. Bend all your efforts, if you wish, toward banishing it—and I'm with you in that all the way. But *don't* knock it. The other thing I need to emphasize is that among the hoards of its adoring habitués, almost nobody has ever thought that smoking was good for them. Pleasant, but not healthful. Long before any relationship of smoking with cancer was recognized, the "cigarette cough" was seen as serious, even dangerous, and smoking was thought by many to cause or exacerbate consumption. But despite that, few people ever tried to

kick the habit until they were gravely ill. Just like now, except now it's children.

And now we find that the tobacco companies, and not the cigarettes themselves, or their sick smokers, who took up the habit fully informed and with both eyes wide open, are legally responsible for those smokers' many ills traceable to their tobacco smoking. Because they are responsible (legally that is, though I have grave doubts about the morality of it) those companies will over the next however many years be pouring multiplied billions of dollars into federal and state coffers to pay for the care and maintenance of old and not so old lungers. I'm not suggesting that the various governments look that gift horse in the mouth, but . . . (Excuse me while I gag.)

I've been thinking about that for some time now, and our TMA President reminded me of it in his message this month. Three years and six weeks ago, the Sunday after Christmas, in fact, I was driving along in my car coming home from church, and minding my own business. It was a wet, rainy day, and my shoes were wet. So as I approached a stoplight my foot slipped off the brake pedal, allowing me to be propelled into the intersection and into the path of an oncoming van. I was broadsided, and my car virtually totaled. I was cut out of the car—literally, strapped to a board, and carted off to the emergency room, where I was examined, x-rayed, and pronounced undamaged, which I had been telling them all along. A few days later, though, I began to have a bit of dribbling and some paresthesias in my legs and feet. So about a month later I was subjected to a spinal fusion involving L3-4 and L4-5, and after about a six-hour surgical procedure I'm now walking around—fortunately, I might add—with two titanium plates and six screws back there.

The automobile industry is making a dangerous product, one at least as dangerous as cigarettes. Of course, it may be just because they're bigger. You can get killed by driving, or even by not driving, them, the same as with the weed. It happens every day. I figure it was only sheer luck, and not that I was in a good, heavy car, that kept me from being hurt much worse—or maybe even killed yet, don't you? Since a lot of folks have found themselves in the same boat, I ought to be able to find a firm of hungry lawyers willing to file a class action suit against the automobile manufacturers, don't you think? Keep 'em honest.

Speaking of honest, I neglected to say that my surgery for my spinal stenosis and severe subluxation had already been scheduled before my accident. But we won't tell *them* that. Even so, we'll still be as honest as everybody else in the current fracas. Spend all that ill-gotten gain, or even any significant part of it, on the health care of the damaged, and antismoking education to keep all those others, mostly children, from becoming that way? It is to laugh.

So ha ha ha!

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

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Letters to the Editor

A Poem

New Millennium

Jay B. Mehta, MD

Buy this . . . buy that. It's the last Christmas of the millennium, Special champagne for the New Year Eve! New bra for the old dolls, Maybe a new hat for the old mind! Sales go up, but stocks may go down!

Y2K? What a chaos!
Mass hysteria of the millennium.
Who is the "man" of the century?
Maybe it ought to be a woman!
History scribbles on sand or stone.
The wind of time wipes them all, but
Myth of the media lingers on!

Patients still get sick and doctors still wonder, "Witch" craft to spare.
Who pays who? And what?
An ancient story of service before self.

Homo sapiens have walked on this planet For eight million years.

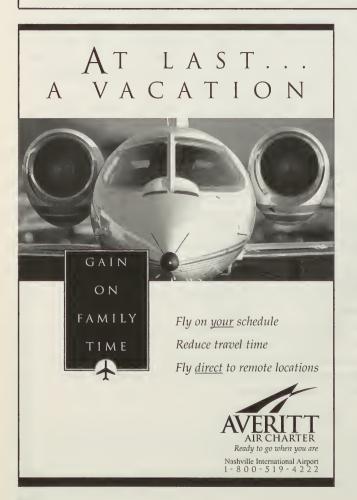
Mother earth has revolved around the sun, For three billion years!

What is there in a millennium?

A drop in the ocean, a blink of the divine eye.

Why all this hoopla for a millennium?

Dr. Mehta is with Pulmonary Associates of East Tennessee in Johnson City.

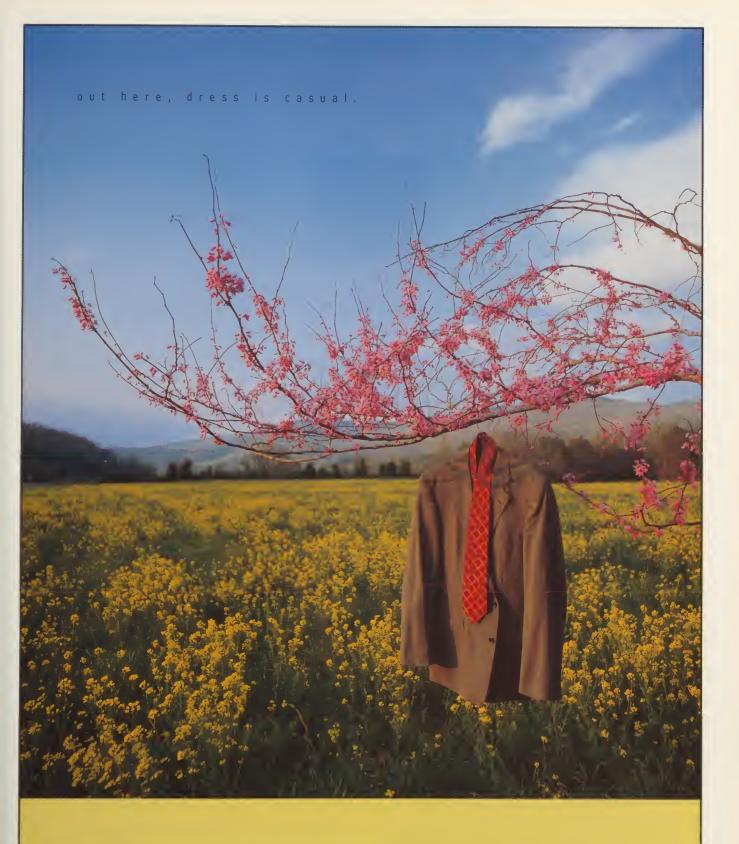


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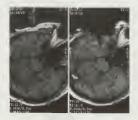
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Tennessee's Mental Health Services in Crisis.

Strained System Undergoes Comprehensive Review

Brenda Williams

There's trouble with a capital "T" when it comes to Tennessee's mental health services. Across the board, doctors, mental health experts, facility administrators and legislators agree that archaic policies and anorexic funding spell trouble for patients seeking mental health care and treatment.

"Right now, in the current system, you have to be in crisis to access any care," says State Representative Mary Ann Eckles, chair of the State House mental health subcommittee. "By then, you've already lost your job, lost your home,

lost your family. It would be better cost-wise for Tennessee and better for quality of life if a person or family could access the system when the warning signs first prevailed." She says Tennessee's mental health services suffer from underfunding and antiquated policies.

"It has really reached a crisis and I think it's going to get worse." That from Richard Bangert, administrator of Columbia/HCA's Parthenon Pavilion at Centennial Medical Center in Nashville. Inadequate insurance coverage is

the biggest problem, Bangert says, whether it be through private plans or TennCare. "Historically, psychiatric benefits, along with benefits for substance abuse, addiction, and other mental health issues, have always been less—it's not unusual that they have 10% of the benefits of what you would have on the medical side."

"Right now, in the current system, you have to be in crisis to access any care. By then, you've already lost your job, lost your home, lost your family. It would be better cost-wise for Tennessee and better for quality of life if a person or family could access the system when the warning signs first prevailed."

> -State Representative Mary Ann Eckles (D) Murfreesboro

Last year's Parity Bill ups the requirements for some employers' private mental health coverage, but Bangert says it does not go far enough. As far as TennCare's behavioral health organizations (BHOs), Premier Behavioral Systems and Tennessee Behavioral Health, he says, "they're both in critical condition." He says TennCare has been good for the state and insurance companies because they are saving money and covering more people, but terrible for doctors and hospitals who have been forced to offer care at a fraction of the normal cost. Consequently, the demand rises while

> treatment centers struggle, services dwindle, and some facilities shut down.

> The president of the Tennessee Psychiatric Association, Dr. William Petrie, is a bit more lenient with Tennessee's Medicaid replacement program. "TennCare has many problems, but it has made an effort to provide for mental health services. Obviously, the program is in trouble and I think it would not be workable to have more reductions in coverage. I think the psychiatric community has tried hard to

work with TennCare in trying to provide treatment. It needs to be funded adequately, and there needs to be more outpatient and adjunctive services for the mentally ill."

Petrie agrees that insurance is the biggest problem. He says patients don't usually inquire about psychiatric coverage until they actually need it, and by then it's too late. "It's been a serious problem for us, with patients who do not receive adequate treatment at times because of problems with insurance coverage."

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

Rural Doctors and Mental Health

In rural Tennessee, the frustration is worse. Dr. Lee Carter, family physician in Huntingdon, says while he is fairly comfortable treating normal complaints like depression, anxiety, or stress management, the trouble lies in getting paid for his efforts . . . especially with TennCare. "The BHOs don't like to pay family physicians to take care of those problems," he says. "I end up having to write off the charges or just have the bill floating back and forth in computer land." Carter adds that patients are often coded and treated for the physical complaints that accompany mental health maladies, "so the MCOs wind up paying for what the BHOs should take care of."

For more serious problems, Carter says it could take days trying to make referrals and meet the criteria of the BHO plans. "Whoever wrote the rules and regulations on who sees who in the BHO plans, I really believe it was someone sitting in an urban area . . . they weren't somebody sitting in a rural setting-out here, it's gonna take a while to accomplish." The TMA member says family physicians need a little more leeway to manage mental health problems, especially since they are often the initial doorway through which patients seek help. "When patients have emotional issues, they want to be seen by someone they're already familiar with, someone who's compassionate and interested in them; they'll sometimes start the process of seeking help by coming to their family doctor. When we get down to that one-on-one with that patient, then we can help them." Carter adds, "We've got to find ways to remove so many of the various hurdles that we've put in the way of helping patients. We seem to set up so much that ends up being a road map of hurdles, instead of a road map to ease the patients' problems."

Title 33 Laws Updated

Among the hurdles are existing laws that govern mental health treatment in Tennessee. First drafted in the 1950s, they have been periodically amended since 1965, but have under-

RESOURCES

NAMI-Tennessee (615) 386-3534 www.nami.org/namitn

TN Dept. Mental Health/Mental Retardation (615) 532-6767/532-6530 www.state.tn.us/mental

Title 33 Revision Commission (615) 253-3051 www.state.tn.us/mental/t33/t33master.html

gone no comprehensive review. That changed in 1998, when Governor Don Sundquist appointed the Title 33 Revision Commission. Its mission was to revamp state policy to meet the following goals:

- Reflect the philosophy of the state to provide services in the least restrictive environment and most typical setting consistent with the needs and choices of the persons served.
- Promote equitable availability of quality services and efficiency in service delivery, and assure appropriate due process safeguards for consumers.
- Assure fiscal and programmatic accountability to consumers and the public with public involvement and oversight.

The 30-member commission was composed of mental health professionals, advocates, providers, legislators, and representatives of family members and consumers. In January, the group's recommendations, both legislative and narrative, were presented to the governor and the Tennessee General Assembly.

Commission Director Mary Rolando says one major recommendation changes the state's focus from institutional care to community-based or home care. "We know that services to individuals in their homes or in home-like settings is much more conducive to good mental health and mental retardation services," says the former state deputy commissioner of mental health services. "It's more humane, it's more dignified, and it's more normal. We want people to experience typical lifestyles as much as possible. We don't want people to feel like outcasts; we want them to realize we're more similar than we are different."

Bangert already recognizes the value of community-based care. "What we've tried to develop on the private side is a program that makes access easy," he says, noting that the new Community Assistance Program (CAPs) features outreach offices throughout Middle Tennessee and liaison services in Columbia/HCA hospitals. Pavilion CAPs Director Dr. Debra Tyson served on a Title 33 subcommittee; she says she is encouraged by the new emphasis, and likes another recommendation that gives the Tennessee Department of Mental Health/Mental Retardation more say in policy-making decisions concerning mental health treatment and services, including TennCare. "Right now the department has no control or say in how the BHOs do their business . . . they have the great breadth of knowledge, a lot of information, but very little say," she says. "The new language that's proposed would give them the ability to make policy decisions. I think that would be good." Other recommendations in the Title 33 revision include:

- Maintaining citizen input on planning and policy development.
- Making children and their families a priority in the treatment of emotional disturbance, mental retardation, or other developmental disabilities.

- Strengthening license requirements for services and facilities treating mental health complaints.
- Adding new services and commitment procedures for patients with severe mental impairment.
- Expanding coverage of Title 33 to people with developmental disabilities.

One recommendation that directly affects Tennessee doctors, Rolando advises, is a change that allows patients with severe mental impairment to be admitted for up to 72 hours of observation assessment and treatment without having to go through court proceedings, as long as two physicians agree that the treatment is needed. "We don't want people to have to deteriorate to the point where emergency involuntary hospitalization is the only alternative," she explains.

Rolando adds some of the panel's recommendations can be implemented immediately following passage of the legislation; others will require at least a year of study.

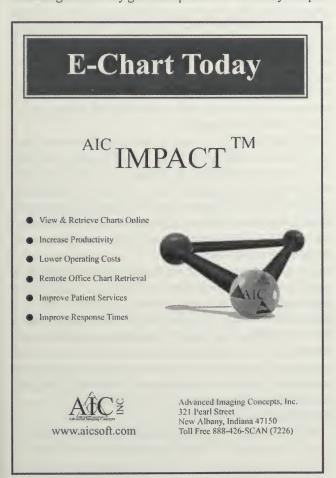
Funding Still a Problem

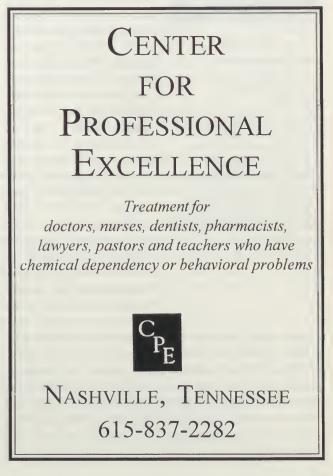
Even after the legislature passes these revisions, as supporters expect it will, money is still a problem. Eckles was a member of the commission: "We've had just a fabulous undertaking and a really good end product . . . the only real prob-

lem is we have no money." Eckles is sponsoring the revision measure in the Tennessee House. "We're going to start the process and then pray for a funding source to get this implemented," she says optimistically.

Even in rural West Tennessee, providers are interested to see how the Title 33 Revision will directly affect patient care. Carter says he'd like to see some changes that will integrate the treatment of physical and mental complaints. "They've tried to keep it in nice little piles, but how can you separate out the mind and the body? For family doctors it's tough when you say, 'That's a separate deal, you're not supposed to play with this part of the body.' I'm hoping some adjustments can be made."

Petrie says his group is not threatened when primary care physicians treat psychiatric illnesses, especially in rural areas. "The more troublesome, complicated cases should get referred," he cautions, "but for the most part, they do a good job. The problem goes back to insurance companies; if they treat an inner-ear infection, they're paid appropriately, but doctors are not really paid fairly to sit down and talk to patients. We need to pay physicians more to talk to patients and to think with the patients about what's the best thing for them."





Practicing Medicine

Loss Prevention Case of the Month

Physician+Nurse=Expensive Clash

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

An 8-month-old white child had a hemangioma involving the right hand in a glove-like conformation that had been present since birth. The mother, who was a nurse, was understandably very concerned. At about 1 month of age the baby was seen by a reputable dermatologist, who evaluated the lesion by ultrasound and found the lesion to consist of both capillaries and venules. In a letter to the referring pediatrician he states, "The capillary component will resorb spontaneously over the next few years. I don't feel any therapy is warranted at this time." On reexamination at 2 months of age the lesion appeared to be spreading slowly up the arm. No therapy was recommended.

Three weeks later a small area appeared in the crease of the wrist on the dorsal side that was open, with some slight drainage and redness. Analgesic cream and antibiotics were prescribed, and a

month later a note in the physician's chart stated, "Some definite decrease of hematoma—much lighter." The antibiotic (Bactrim) was continued, and cleaning with hydrogen peroxide was prescribed. In a letter to the pediatrician, "There has been considerable resorption of the massive hematoma. During resorption of the hemangiomatous tissue, the blood supply to the surface is frequently compromised resulting in cutaneous ulceration. I have been teaching the mother skin

care while treating the patient with a combination of topical antibiotics, analgesics, and high-potency anti-inflammatory agents. Patient has tolerated this therapy well with good resolution of the ulcer." Three months later sonography of the hand was reported: "Multiple easily compressible vessels in lesion in right hand. These are all consistent with venous structures and I do not identify any arteries within the lesion itself."

The mother was not at all satisfied with the "wait and see" approach and requested referral to a pediatric surgeon known to be skilled in the use of the laser technology. The surgeon recommended, but did not document, continuing to watch the lesion since it had already showed some resorption. This approach did not satisfy the mother, and on her insistence, laser surgery was scheduled. Nowhere in the surgeon's notes does he refer to the mother's attitude toward treatment of her child. There was no discussion of the planned surgery with the mother that pointed out the risks and benefits of the procedure documented in the medical record. It seemed informed consent was assumed.

The YAG laser was used on the dorsal surface of the lesion only, since the hemangioma was circumferential. No difficulties were encountered with the surgery. Ten days after the surgery the baby was brought back to the surgeon who, along with his residents, examined her. The resident's note states, "Parents were concerned with the darkened eschar. No cellulitis was present. Bactroban (an antibiotic cream) and an antibiotic were prescribed."

A week later the patient was admitted to the hospital for intravenous antibiotics, whirlpool debridement, and further evaluation because of obvious infection of the eschar. The admission note states, "She will probably need a skin graft." The discharge summary states, "During hospital course consistently ran fever 102°F and 104°F. Blood cultures revealed no growth. Tissue cultures revealed coagulase-negative *Staphylococcus aureus*. Wound improved with most of eschar removed. Being discharged on oral antibiotics she received in hospital."

The eschar and the infection resulted in the exposure of some of the tendons on the dorsal surface of the wrist and hand, requiring the intervention of a plastic surgeon. Multiple reconstructive procedures followed, including tendon lengthening surgery. Repeatedly, the surgical approach to some contractures in the hand was necessary. On one occasion, the patient was sent to a noted hand surgeon in Louisville, Ky, for examination and opinion. She was told that there had been some radiation damage to some of the bones in the hand and growth would be affected. Functionally, the child has a fairly good right hand, but cosmetically the outcome is far from satisfactory. She is left handed, but her mother states that the use of the right hand is compromised significantly in the child's normal daily activities.

A lawsuit was filed when the patient was about 4 years old charging the surgeon with negligence because he was not qualified to do the surgery, using the wrong type of laser, lack of informed consent, and negligent performance of the procedure. A large six-figure settlement was necessary to end this case.

Loss Prevention Comments

This was indeed a case where two strong-willed professionals were pitted against each other. The nurse mother was a highly trained professional who taught in nursing school, worked as the director of a special care unit in a large tertiary hospital, and wanted the best care for her daughter. The physician was a highly trained surgeon, and a teacher in a large academic institution. He had become a recognized authority in the use of the laser in surgery, and seemed to have been maneuvered into doing definitive surgery after he had counseled the mother to wait. It is obvious from the record that the dermatologist, who documented on at least two occasions that in time much of the hemangioma would resolve, was pressured by events and the mother's insistence to consult the surgeon. He even documented that some of the lesion was resolving at the time the referral occurred.

The development of the superficial skin erosion and infection seemed to indicate to the mother that the course being followed was not the right one. The defendant surgeon stated in his deposition that he had counseled that the best course was to defer definitive treatment for two or three years. The mother was not happy with this approach and even suggested that she wanted the laser surgery for her daughter.

After the surgery, when complications developed the mother thought the surgeon to be inattentive to her daughter. According to the record, the attending physician would make rounds on his patient, make some comment to the mother, and then leave the room for his junior associates to deal with postoperative questions, treatments, and explanations. One incident that the mother would describe later as typical was on an unscheduled visit to the doctor's office because of the advance of the infection when the child was

seen by a junior associate who said that the patient should be admitted to the hospital for intravenous antibiotics, only to have the surgeon, who appeared annoyed, cancel the plans for admission and leave the room without addressing the mother. Five days later the mother phoned the doctor's office to be seen that day and when asked to come in the next day "begged" that he meet them in the emergency department. He came to the emergency department, looked at his patient and said, "It doesn't look as bad as I thought it would," whereupon he left the room, and his junior assistant processed the admission. By this time the mother, according to her own statement, was thoroughly frustrated and angry.

In the investigation subsequent to the lawsuit, the most frequent comment was that the lesion should not have been treated definitively until much later, after the resolution of the capillary portion of the hemangioma had occurred and the child had grown in size. Other experts commented that the deep damage done to the skin by the surgery may have been responsible for creating the favorable site for the *Staphylococcus aureus* infection.

Jousting played a part in this mother's deep resentment of the surgeon. A resident seemed to go out of his way to criticize the surgeon as to his uncaring and unfeeling attitude. The depth of this doctor's criticism led the mother to report the surgeon to the State Board of Medical Examiners in addition to the malpractice suit that had been filed against him.

The anger brought on by what the mother interpreted as uncaring behavior by the physician, the bad result in the development of the deep eschar and infection, and the years of restorative care required to achieve a functional hand resulted in circumstances that brought about the decision that the large six-figure settlement was in the physician's best interest.

In this situation there should have been a pointed effort on the part of the physician to understand the attitude of the nurse, and therefore to take more time to address her concerns all along the way. It is never a good idea for the physician to allow the pressure of patient or family to push him or her into a treatment plan that is not clinically appropriate. It would appear from the record that this lesion, as unhappy as it made everybody, should have been watched for a much longer period. When the decision was made to do the laser surgery, the physician should have been very careful to explain just what they were getting into, the negatives, including infection, the alternative of waiting for maximum resorption of the lesion, and truly having an informed consent by the parents. As physicians, we are trained to exercise our best judgment in the care of our patients. In this case, that was not done, and a long painful legal experience developed for both of the professionals involved.

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FUTURE 50

| Health Policy Report

What Is Health Services Research—And Why?

David Mirvis, MD

Health services research in on the march. Granting agencies are putting more money into it, academics health centers are developing divisions or centers to promote it, and results of studies are receiving general as well as professional publicity. But *what* is health services research and *why* do we care so much about it right now? These are the questions we will address in this Health Policy Report.

What is Health Services Research?

Numerous definitions of health services and policy research have been offered. Several examples convey the scope of the discipline. The British House of Lords' defined it as "all strategic and applied research concerned with the health needs of the community as a whole, including the provision of services to meet these needs." Peckham, writing in The Lancet,2 described it as "a research approach . . . brought to bear systematically on issues relating to the effectiveness of clinical practice, the dispersal and use of existing knowledge, the best use of human and other resources, and the contribution of medical interventions to the health status of individuals and the population." Brook³ of the RAND Institute defined health services research as studies of "methods (how should quality be measured?), descriptive (what is the level of quality in this academic institution?), analytical (do teaching hospitals provide better quality than nonteaching hospitals?), or experimental (after randomizing patients to an HMO or a fee-for-service system, in which system is the quality of care better?)."

Dr. John Eisenberg, Commissioner of the Agency for Health Care Policy Research, described health services research⁴ as a part of the overall continuum of biomedical research that begins with basic medical science and extends through clinical investigations to research on the organization, financing, and delivery of health care (Fig. 1).

These definitions suggest that health services research can be described by sets of characteristics identifying the types, the subjects, and the goals of studies. Thus, health services research is characterized by studies that are quantitative, applied, relevant, and population-based. They address the qual-

From the Center for Health Services and Policy Research, University of Tennessee, Memphis.



After JM Eisenberg, Health Aff 1998. 17(1):99

- Addresses the questions, what causes diseases and how can they be prevented or treated?
- Addresses the questions, what does it cost and how do we close the gap between what we know and what we do?

Figure 1. The continuum of health care research (redrawn and modified from Eisenberg).⁴

ity, efficacy, effectiveness, efficiency, organization, planning, and distribution of health care services, with a focus on the structure, function, and outcome of health care services, and with the aim of affecting public policy, health system policy, clinical policies, and health system operations.

Why Do We Care So Much About It?

The importance of health services research can be examined in several broad contexts. First, these studies identify areas for improvement in clinical practice and in health system function. By demonstrating what is working, and more importantly what is not working, in health care practice, these studies highlight areas on which to focus attention and new avenues for additional research.

The second major role for health services research lies in influencing health policy development and implementation. Health services research can play five critical roles in formulation and implementation of effective public policy. These include documentation, analysis, prescription, assessment, and education.

Documentation includes gathering, cataloging, and correlating facts that depict the state of affairs that policymakers hope to change. The importance of this function is illustrated by the statement of Senator Daniel Patrick Moynihan: "Society cannot act on social problems until it knows it has them, and it often does not know it has them until it can count them." Documentation provides a "call to arms" by illustrating prob-

lems not known to exist or emphasizing the severity of important concerns not fully appreciated.

Analysis entails examining various options for dealing with the concerns that have been documented, and demonstrating or suggesting which options are viable and which are not—and why. It serves to "clear the conceptual underbrush," to narrow and focus the alternatives, to elevate the nature of the policy debate, and to nudge decision makers into action.

Prescription involves formulating specific models or plans that may be adopted by policymakers and planners. Developing and supporting specific solutions to health care problems can "jump start" the policymaking process by providing realistic options with low risk that are based upon tested experience and expert judgment.

Assessment includes the quantitative evaluation of the success or failure of a policy intervention in accomplishing the objectives for which it was designed. By assessing the impact of an intervention, health services research and analysis can identify the need to change policy or implementation strategy to improve the likelihood of realizing the desired results. It permits closing the loop of planning to implementation to assessment to further planning, and so forth.

Education includes providing reliable, meaningful, and understandable information to policymakers and planners about general issues in health care as well as about specific topics of particular concern. Health care issues are complex, multifactoral and, most importantly, rapidly changing. The health care literature and most educational opportunities are designed for health care professionals; they are highly technical and generally unsuitable for policymakers and planners. Information that is commonly available to decision makers is often based on anecdotes rather than upon scientific study. Health services research and policy programs have the opportunity to provide continuing education to policymakers, based upon accurate and objective analysis.

To successfully achieve its potential in policymaking, health services research must overcome certain barriers. Research data are commonly not utilized in the policy process.^{6,7} Among the reasons they are not are the limited relevance of much research to the policy issues under discussion, the long delay in providing research data when policy decisions are to be made quickly, and the presentation of research findings in situations and in formats not accessible to or readily understandable by the decision makers.

Third, these studies fill a critical niche within the education, research, and public service functions of an academic health center. The educational role is based upon the growing importance of understanding the impact of changes in the health care delivery system on the role and functions of all health care professionals. Topics such as health care policy, health economics, and evidence-based medicine have become essential ingredients of the education of future pro-

fessionals as we all become more accountable for the clinical and financial consequences of our decisions. In addition, the challenge of many academic health centers to increase the number of generalist practitioners requires greater expertise in disciplines related to health services research such as population-based studies and health system management. The presence of faculty with the relevant expertise is thus an obligatory component of an academic health center.

Academic-based health services and policy research programs are also in unique positions to meet the public policy goals of health services research. A major responsibility for health services and policy research exists within the public service mission of academic health centers, especially those that are state-funded. As summarized by Darren Praznik, former Minister of Health of the Canadian province of Manitoba,10 academic programs provide a knowledge of "what is 'known,' which can be useful in challenging the self-interested positions of stakeholders" and, because they are "at arm's length from the policy process, academics bring an independent view to highly charged issues and a credibility to the findings." To meet this challenge, the University of Tennessee, Memphis has recently formed the Center for Health Services and Policy Research to focus on health-related issues in Tennessee.

A fourth, internal opportunity for the application of health services research is in the operation of the health delivery systems. Many of the tools and principles used in analyzing state or national health issues are directly applicable to the management of practices and managed care functions. These skills and concepts include those required to analyze disease prevalence and incidence in covered or served populations; assess quality of care; develop and assess adherence to clinical guidelines and protocols; evaluate resource utilization and clinical practice patterns; and implement process improvement activities. Health services research can not only affect public policy, but can also influence health system policy and clinical policy.

Why Now?

These factors have existed for many years. Why has health services research emerged so intensely now?

This increase in interest and activity has been driven by the rapid changes that have occurred in the health care delivery systems during the past several years. First, the perceived and real limitations of health care resources have forced us to examine more closely the value of what we do. Second, the increasing role of consumer choice and involvement in health care has opened up clinical practice to the scrutiny of nonprofessionals. This, in turn, has required us to respond to the same critical, and at times skeptical, reviews of our accomplishments and problems.

Third, enabling all of these motivations is our greater tech-

nical and conceptual ability to quantify various aspects of health and health care. We have the ability to measure quality of care 12 and to examine clinical practices using the tools of, for example, industrial engineering to measure and modify processes of care. A notable example of this is the work of Wennberg and Gittelson¹³ analyzing differ-

The goal of health services research is "to assure Americans that the information needed for decision making will be available; that it will be translated into knowledge about health care outcomes, effectiveness, efficiency, and quality; and that it will be used wisely to enhance the health of the public."

> Dr. John Eisenberg Commissioner of the Agency for Health Care Policy Research

that angiotensin converting enzyme (ACE) inhibitors improve survival of patients with congestive heart failure, only half of appropriate patients receive them.15 We have the evidence but we do not practice evidence-based medicine. We know that organized efforts at quality improvement can, in reality, improve the quality of care,16

but we do not routinely apply these techniques.

A related challenge is to understand, at a behavioral level, what causes some of the major discrepancies in health care in this country, that is, the gaps between what we know and what we do. This includes not only examining why we do not prescribe ACE inhibitors when appropriate15 but why major racial differences in health and in health care persist.¹⁷

A third challenge is for research studies to make their way into public policy formulation. The barriers described above can be overcome through efforts of policy centers specifically charged with this mission.⁷ As summarized by William Roper, 18 former Administrator of the Health Care Finance Administration (HCFA) and Director of the Centers for Disease Control and Prevention (CDC):

"In my experience at CDC and HCFA, I know firsthand the critical importance of health services research in decision making. Without it, the process of governing can degenerate into decisions that are made solely on bureaucratic whim, or in response to the pleadings of organized interest groups or in conformance with specific political ideology."

What Has Health Services Research Done?

ences in physician practices in different geographic areas. Findings such as major differences in hospitalization rates

for similar conditions in Boston and New Haven and differ-

ences in rates of common surgical procedures have under-

scored to us as well as to the public the realization that we as

health care professionals know the absolute value of little of

what we do and the recognition that we rely heavily on anec-

dotes and personal experiences instead of on information from

carefully designed clinical trials to formulate and assess poli-

Has health services research actually contributed to health and health care? Ginzberg¹⁴ of Columbia University has listed areas in which health services research has had an impact of health practice and policy. These include examining differences in health and health care among different ethnic and socioeconomic groups; alterations in hospital and physician payment systems (such as development of DRGs and resource-based relative value scales, and applications of risk adjustment methods); physician manpower planning (including recommendations to increase the number of generalists and reduce the number of specialists in practice); development, implementation, and assessment of finance systems for the poor and the elderly (including TennCare); evaluation of alternative health care delivery systems (including managed care); assessment and improvement of quality of care (by, for example, implementation of process improvement programs and evidence-based clinical guidelines); and critical assessment of new technologies and drugs.

Where to Now?

cies and practices.

The final question is "What lies ahead?" What are the upcoming challenges for health services research? I suggest that one challenge is for the results to make their way into clinical practice. Studies have, in many cases, demonstrated what works and what doesn't, what treatments should be prescribed and which should not, and what tests are beneficial and which are redundant or misleading. But other studies continue to show that practice lags behind. Although we know, for example,

References

- 1. House of Lords Select Committee on Science and Technology: "Priorities in Medical Research. Volume I: Report.
- 2 Peckham M: Research and development for the National Health Service. Lancet 338:367-371, 1991.
- 3. Brook RH. Health services research: is it good for you and me? Acad Med 64:124-130, 1989. 4 Eisenberg JM Health services research in a market-oriented health care system. Health Aff 17(1):98-108, 1998
- 5. Brown L: Knowledge and power. health services research as a political resource, in Ginzberg
- E (ed) Health Services Research. Cambridge, Harvard University Press, 1991.
 6. Soumerai SB, Ross-Degnan D, Fortress EE, et al: Determinants of change in Medicaid pharmaceutical cost sharing: does evidence affect policy? Milbank Q 75:11-34, 1997.
- . Roos NP. Establishing a population data-based policy unit. Med Care 37:JS15-JS26, 1999. 8 Relman AS. Education to defend professional values in the new corporate age. Acad Med 73:1229-1233, 1998
- 9. Rclman AS: Assessment and accountability. the third revolution in medical care. N Engl J Med 319 1220-1222, 1988
 - 10. Praznik D. Forward Med Care 37:JS1-JS2, 1999.
- 11. Nelson AF, Quiter ES, Solberg L1. The state of research within managed care plans: 1997 survey. *Health Aff* 17(1):128-138, 1998.
- 12. Brook RH, McGlynn EA, Cleary PD Measuring quality of care. N Engl J Med 335:966-970, 1996
- 13. Wennberg J, Gittelson A: Variation in medical care among small areas. Sci Am 246:120-134, 1982
- 14. Ginzberg E: Health Services Research. Cambridge, Harvard University Press, 1991. 15. Pearson TA, Peters TD The treatment gap in coronary artery disease and heart failure: community standards and the post-discharge patient. Am J Cardiol 80:45H, 1997.

 16. O'Connor GT, Plume SK, Olmstead EM, et al. A regional intervention to improve the
- hospital mortality associated with coronary artery bypass graft surgery. The Northern New England Cardiovascular Disease Study Group. JAMA 275:841-846, 1996.
- 17. Schulman KA, Berlin JA, Harless W, et al: The effect of race and sex on physicians' recommendations for cardiac catheterization. N Engl J Med 340:618-626, 1999.

 18. Roper WL: The new environment for health services research: private and public sector
- opportunities. Health Serv Res 32:549-556, 1997.

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Autoimmune Hepatitis A Diagnostic Challenge

Abrar Ahmad, MD; Eapen Thomas, MD

Introduction

Chronic hepatitis is characterized by the presence of clinical and biochemical evidence of liver disease associated with unresolving hepatic necrosis and inflammation on liver biopsy for at least six months. It is an etiologically diverse syndrome that may be caused by viral, metabolic, toxic, or autoimmune events. Since epidemiology, natural history, prognosis, and treatment of the

disease are dependent upon the specific etiology, it is critical to search for the etiology at the time of presentation. While most of the possible causes can be easily eliminated by a careful history and straightforward serology, autoimmune hepatitis is a diagnosis of exclusion and circumstantial evidence needing a careful, exhaustive investigation for a firm diagnosis. Autoimmune hepatitis has been further classified as classic or type 1 and variants, which includes other subtypes along with previously labeled type 2. Classic autoimmune hepatitis occurs 70% in women. The most common symptom is fatigue (85%) and most common physical findings are jaundice (79%) and hepatomegaly (66%). Only 10% of the affected have severe disease characterized by increased serum aminotransferase levels greater than five times, along with two times elevation of gamma globulin or a 10 times elevation of serum transaminases alone.1 We present an interesting case of autoimmune hepatitis in an elderly male patient who had severe manifestations requiring an exhaustive investigation.

From the Department of Internal Medicine, Division of Gastroenterology, James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Department of Internal Medicine, PO Box 70622, J. H. Quillen College of Medicine, Johnson City, TN 37614-0622 (Dr. Ahmad).

ABSTRACT

Autoimmune hepatitis is a type of chronic hepatitis characterized by hypergammaglobulinemia, hypertransaminasemia, presence of autoantibodies, and active necroinflammatory process in the liver revealed by histology. Its onset is usually acute and has a bad prognosis. Tissue antibodies are found in large proportions of patients. Women outnumber men in a 2-3:1 ratio, and it is mostly young women who are affected. Ten percent of all affected have severe disease characterized by elevations of serum aminotransferase levels greater than five-fold, along with a two-fold elevation of gamma globulin or a 10-fold elevation of serum aminotransferase levels alone. We present an unusual case of this disorder in a 60-year-old male patient manifesting its severe form.

Case Report

A 60-year-old white male aviation supplier presented with five days of jaundice, nausea, and loss of appetite following six months of increasing fatigue. He denied any vomiting, dyspepsia, abdominal pain, clay colored stool, melena, rectal bleeding, shortness of breath, or dizziness. He had lost approximately 10 lb in weight in the last six months. He denied any international travel

or drug abuse. Due to fatigue, he used some nutritional supplements containing pycnogenol (grape seed extract and lemon flavonoids) and ginkoba biloba in manufacturers recommended doses for one week or so approximately six months earlier. His past medical history included peptic ulcer disease, with upper gastrointestinal bleeding requiring blood transfusion in 1985 and 1986. He denied any alcohol use or smoking. He gave no family history of liver diseases, anemia, or cancer. He had been taking lansoprazole 30 mg once a day for four or five years. He had no significant allergic problems.

Physical examination showed severe jaundice of the skin and the sclera. He looked a little dehydrated, but was alert and oriented to time, place, and person. Abdominal examination and other systems were within normal limits.

Laboratory studies provided by the patient from 1997 and 1998 showed a slightly elevated total bilirubin of 1.7 mg/dl on both occasions but a normal hepatic biochemistry otherwise. Admission liver function tests (Table 1) suggested a mixed cholestatic and hepatocellular pattern. Prothrombin time (PT) was 12.8 seconds, and partial thromboplastin time (PTT) 35.0 seconds. Albumin was 3.0 gm/dl with normal total protein suggesting liver dysfunction. Serum electrolytes were normal, and the hemogram was normal except for the thrombocytopenia (Table 1). Results of a hepatitis panel were

not suggestive of active viral hepatitis due to common viruses (Table 2). A urine drug screen and ethyl alcohol levels were negative. Ultrasound and a contrast enhanced CT scan of the abdomen showed no ductal dilatation but a normal to slightly enlarged liver, a patent portal vein, and no ascites. A radionuclide scan with ^{99m}Technitium-labeled *N*-substituted iminodiacetic acid (HIDA) gave minimal to absent visualization of the liver, bile duct, gallbladder, and intestinal tract, indicative of diminished hepatocyte dysfunction.

The patient was managed conservatively with diet and rest. In one month his bilirubin decreased significantly and his platelet count returned to normal (Table 1) without any specific therapy. After one month of remission, however, he returned with nausea and fatigue for a couple of days, accompanied again by jaundice (Table 1). He had developed ascites and spider angiomata, and his thrombocytopenia had worsened to 32,000/cu mm but without any bleeding manifestations. A liver biopsy demonstrated fibrosis with nodule formation and a moderate degree of portal mononuclear infiltration. The inflammation had disrupted the limiting plate and was associated with piecemeal necrosis, indicative of chronic active cirrhosis. Occasional plasma cells were present in the portal infiltrate. No iron deposition was noted.

Serum protein electrophoresis had polyclonal hypergammaglobulinemia with beta-gamma bridging consistent with liver disease. Urine protein electrophoresis was unremarkable. An extensive workup for various toxic, infectious, autoimmune causes and for other chronic hepatitis was unrevealing (Table 2). Bone marrow study was normal and showed no cause for the thrombocytopenia. At this point an endoscopic retrograde cholangiopancreatography (ERCP) was performed, showing normal hepatobiliary and pancreatic ductal system.

A low-salt diet was started, with prednisone 20 mg once a day and spironolactone that was gradually increased to 100 mg twice a day. He responded remarkably well, and in one week his bilirubin decreased to 15.0 mg/dl and platelets improved to >50,000/cu mm (Table 1). His symptoms and general well-being improved even more than his laboratory values. In one month his liver function tests and platelet counts became normal (Table 1). Once platelets improved, a hepatologist was consulted and azathioprine 25 mg once a day was added for better immunosuppression. He is now being evaluated for placement on a liver transplant list if the need for transplant arises in future.

Discussion

Chronic autoimmune hepatitis was first described in 1950 by Waldenstrom² as a disease of young women associated with hypergammaglobulinemia, plasma cell infiltration of the liver, and cirrhosis. Autoimmune hepatitis is rare. In a recent Norwegian study, the mean annual incidence of autoimmune

TABLE 1

LIVER FUNCTION TESTS AND HEMOGRAM DURING COURSE OF ILLNESS

	Reference Lab Values	Initial Labs	Conservative Management	Relapse	After 1 week Prednisone	After 1 month Prednisone and Azathioprine
Liver Functions						
Total Bilirubin	0.2 – 1.0 mg/dl	21.4 mg/dl	3.0 mg/dl	23.5 mg/dl	15.0 mg/dl	3.3 mg/dl
Direct Bilirubin	0 – 0.2 mg/dl	13.0 mg/dl	1.6 mg/dl	13.6 mg/dl	7.0 mg/dl	1.5 mg/dl
Alkaline Phosphatase	38 – 126 U/L	227 U/L	181 U/L	268 U/L	180 U/L	159 U/L
ALT	7 – 56 U/L	1208 U/L	98 U/L	200 U/L	93 U/L	34 U/L
AST	15 – 46 U/L	1076 U/L	143 U/L	529 U/L	112 U/L	34 U/L
GGT	8 – 78 U/L	498 U/L				
PT	10.6 - 12.2 sec	12.8 sec				
PTT	23 – 33 sec	35.0 sec				
Albumin	3.5 - 5.0 gm/dl	3.0 gm/dl				
Protein	6.4 – 8.3 gm/dl	6.5 gm/dl				
Hemogram						
Platelets	166,000 - 383,000/cu mm	88,000/ cu mm	160,000/ cu mm	32,000/ cu mm	74,000/ cu mm	144,000/ cu mm

hepatitis was reported to be 1.6/100,000.3 There is a female preponderance of 70% to 80%, young people being most commonly affected. Predisposition to autoimmune hepatitis type 1 is associated with DRB1*13 and DRB1*03 alleles, while type 2 is associated with DRB1*07 and DRB1*03 alleles.4 Recent work by Yachida et al⁵ suggested that dysregulation of proto-oncogene bcl-2, which normally is known to inhibit apoptotic cell death, might play a critical role in the development of this syndrome. Cells expressing bcl-2 were

TABLE 2
DIFFERENTIAL DIAGNOSTIC PANEL

Labs	Reference Range	Results	
Infectious Hepatitis?			
HCV Ab	Absent	Absent	
HBsAg	Absent	Absent	
HBsAb	Absent	Reactive	
HBeAb	Absent	Reactive	
HBcAb	Absent	Reactive	
HAV IgG	Absent	Reactive	
HAV IgM	Absent	Absent	
Monospot Test	Negative	Negative	
EBV serology	Negative	Negative	
CMV IgG and IgM	Negative	Negative	
Herpesvirus-6 IgG	Negative	Positive at 1:2560	
Herpesvirus-6 IgM	Negative	Negative	
HIV antibody	Negative	Negative	
Toxic Hepatitis?			
Lead	0 – 80 µg/L	Absent	
Arsenic	0 - 100 µg/L	Absent	
Mercury	0 – 20 μg/L	Absent	
Autoimmune Hepatitis?			
Anti-SMA	<1:20	Negative	
AMA	<1:20	Negative	
ANA	Negative <1:40	Positive at 1:320	
Anti-Smith	Negative	Negative	
Anti-RNP	Negative	Negative	
Anti SS-A/Ro	Negative	Negative	
Anti SS-B/Ro	Negative	Negative	
Anti SCL-70	Negative	Negative	
Other Chronic Hepatitis	?		
CEA	0 –5 ng/ml	Normal	
AFP	0 - 8.1 ng/ml	24.7 ng/ml	
Serum Ferritin	32 – 284 ng/ml	1453 ng/ml	
Serum Iron	65 – 175 µg/dl	55 µg/dl	
TIBC	250 – 450 μg/dl	224 µg/dl	
Alpha-1 Antitrypsin	83 – 199 mg/dl	137 mg/dl	
Serum Ceruloplasmin	25 – 63 mg/dl	61 mg/dl	

increased in the peripheral blood and in the liver, which might promote the cellular immune response leading to autoimmune hepatitis.

Our patient was an elderly man instead of the classic young woman. He had severe manifestations, present in only 10% of all patients with this syndrome, which makes it an even more unusual case. The disease is characterized by a remitting and relapsing course, as our patient demonstrates well. We tried to rule out various causes of chronic hepatitis by logical investigations, but still it required an extensive workup. An underlying Gilbert's disease could explain his slightly elevated bilirubin at baseline. He had severe hyperbilirubinemia of more than 20 mg/dl, while the average in most series is around 5 mg/dl. We could find no literature on the association of ginkoba biloba and pycnogenols with autoimmune hepatitis in manufacturers recommended doses.

In about one-third of cases the disease begins abruptly and is clinically indistinguishable from typical viral hepatitis, but his viral serology was negative except for a hepatitis panel consistent with past hepatitis B infection and resolution to immunity, and also for a prior hepatitis A. Herpes virus 6 serology was positive, but there was no evidence of herpes on liver biopsy, and his clinical picture was different from herpetic infection, which has a high fever and rash. In fact autoimmune hepatitis can have positive nonspecific antibodies to a variety of viral and bacterial agents.1 Metabolic causes such as Wilson's disease, alpha-1-antitrypsin deficiency, and hemochromatosis were unlikely, though there is 17% to 63% association with autoimmune diseases. Interestingly, our patient did not have clinically overt more commonly associated autoimmune problems like arthritis, rash, thyroiditis, Sjogren's syndrome, or ulcerative colitis. Instead, he had a less common idiopathic thrombocytopenic purpura, which may have been worsened by hypersplenism. Only the presence of ANA and absence of other antibodies make our patient fall into the classic category, which is a more common type. His good response to initiation of prednisone treatment is more suggestive of autoimmune hepatitis. The rate of ANA positivity is approximately 63% in autoimmune hepatitis.6 Autoantibody titers at presentation and autoantibody behavior during therapy are not accurate indices of the disease's severity or prognosis.7 Recently, perinuclear antineutrophil cytoplasmic antibodies (pANCA) have been defined as the most sensitive autoantibody of type 1 autoimmune hepatitis.8

The severe form of the disease is aggressive. Up to 40% of untreated patients succumb within six months, and survival is only 10% after ten years. Virtually all untreated patients develop cirrhosis. When treatment is indicated, a practical approach is to give prednisone alone at 20 mg orally once a day, or 10 mg orally once a day combined with azathioprine 50 mg orally once a day for at least 12 months be-

yond maximal biochemical improvement. Then histologic remission should be confirmed by a liver biopsy before tapering the steroids, otherwise relapse can occur. Serum AST and gamma globulin levels are the most useful indices to monitor during therapy, and liver tissue examination is the best method of evaluating completeness of response.9 Remission can be achieved in more than two-thirds of patients treated for up to three years. Tacrolimus and budesonide are promising new drugs.9 Methotrexate may have a role in the treatment of autoimmune hepatitis refractory to standard therapy. ¹⁰ If no response occurs, liver transplantation remains the only hope for these unfortunate people, but recurrence is still possible in the transplanted organ.

References

- Kaplowitz N: Liver and Biliary Diseases. Baltimore, Williams and Wilkins, 1996.
 Schiff L, Schiff ER: Diseases of the Liver. Philadelphia, J. B. Lippincott Company, 1993.
 Berdal JE, Ebbesen J, Rydning A: Incidence and prevalence of autoimmune liver disease.
- Tidsskr Nor Laegeforen 118:4522-4523, 1998.
- 4. Bittencourt PL, Goldberg AC, Cancado EL, et al: Genetic heterogeneity in susceptibility to autoimmune hepatitis types 1 and 2. Am. I Gastroenterol 94 1906-1913, 1999.

 5. Yachida M, Kurokohchi K, Arima K, et al: Increased bcl-2 expression in lymphocytes and its
- association with hepatocellular damage in patients with autoimmune hepatitis. Clin Exp Immunol 116:140-145, 1999
- 6. Bayraktar Y, Bayraktar M, Gurakar A, et al: A comparison of the prevalence of autoantibodies in the individuals with chronic hepatitis C and those with autoimmune hepatitis: the role of interferon in the development of autoimmune diseases. Hepatogastroenterology 44:417-425, 1997.
- 7. Cjaza AJ: Behavior and significance of autoantibodies in the type 1 autoimmune hepatitis. I Hepatol 30:394-401, 1999.
- 8. Zauli D, Ghetti S, Grassi A, et al: Anti-neutrophil cytoplasmic antibodies in type 1 and 2 autoimmune hepatitis. Hepatology 25:1105-1107, 1997.
- 9. Czaja AJ: Drug therapy in the management of type 1 autoimmune hepatitis. Drug 57:49-
- 10. Burak KW, Urbanski SJ, Swain MG: Successful treatment of refractory type 1 autoimmune hepatitis with methotrexate. J Hepatol 29:990-993, 1998.

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Original Contribution

Cicatricial Pemphigoid With an Upper Airway Lesion

William C. Cole, MD; Stuart Leicht, MD; Ryland P. Byrd Jr., MD; Thomas M. Roy, MD

Introduction

In 1911, a blistering process with resultant scarring of the mucus membranes was described in the medical literature and named "benign mucous pemphigus." Subsequent observations have confirmed that this uncommon process, now referred to as cicatricial pemphigoid, is an autoimmune subepidermal vesiculobullous disease that affects the body's mucous

membranes. It occurs primarily in the eyes and mouth, but the entire upper aerodigestive tract is at risk.

In contrast to other blistering diseases, cicatricial pemphigoid may have a chronic course that results in significant scarring.² If the eyes are involved, the patient may experience chronic conjunctivitis with development of corneal opacification, entropion, and eventually symblepharon. Healed oral lesions will also leave scars, but they are less problematic unless the laryngeal mucosa is affected. (Fig. 1).

A careful search of the medical literature indicates that respiratory distress due to cicatricial pemphigoid is rare. We report the case of a patient with symptomatic subglottic stenosis due to this mucocutaneous disorder.

Case Report

A 58-year-old man who was a nonsmoker without known exposure to toxins or infectious diseases complained of dyspnea on exertion and upper airway noise. He had an unre-

From the Department of Internal Medicine, James H. Quillen VAMC and College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Veterans Affairs Medical Center 111-B, Division of Pulmonary Medicine, PO Box 4000, Mountain Home, TN 37684-4000 (Dr. Cole).

ABSTRACT

Cicatricial pemphigoid is an unusual mucocutaneous disease that is characterized by subepidermal blister formation involving the oral and conjunctival membranes. The oral lesions are expressed as erythema and induration and have rarely been associated with upper airway obstruction. We report the case of a patient with dyspnea and an abnormal flow-volume loop who was found to have subglottic compromise due to cicatricial pemphigoid. Immunosuppressive therapy improved his symptoms and air flow.

markable medical history and had never required surgery. His only medication was an aspirin each day. Review of systems revealed a recurring sore throat and intermittent odynophagia over the last three months.

On examination he had a faint inspiratory stridor, a scarred uvula, and two buccal 5-mm to 6-mm mucosal ulcers. The remainder of his examination, with special at-

tention to his eye and chest, was unremarkable.

Laboratory studies, chest roentgenogram, electrocardiogram, and arterial blood gas analysis were normal. His forced vital capacity maneuver (FVC) was decreased to 78% of predicted, and forced expiratory volume in one second (FEV₁) was decreased to 68% of predicted, giving a FEV₁/FVC of



Figure 1. Example of pharyngeal ulcers that may occur with cicatricial pemphigoid.



Figure 2. Endoscopic view of the subglottic lesion immediately below the vocal cords.

70%. Both peak expiratory flow (PEF) and peak inspiratory flow (PIF) rates were diminished, yielding a flow-volume loop suggestive of a fixed upper airway obstruction.

Flexible fiberoptic laryngoscopy confirmed pharyngeal ulcers consistent with cicatricial pemphigoid and a subglottic lesion (Fig. 2), biopsies from each of which were histologically consistent with pemphigoid. The diagnosis of cicatricial pemphigoid was made when immunofluorescence study showed an interrupted linear basement membrane zone that stained positive for IgG, IgA and C3 (Fig. 3).

Oral prednisone 80 mg/day and azathioprine 100 mg/day were started, and he also was instructed to rinse his mouth four times a day with a solution of hydrogen peroxide and dexamethasone solution. Over a period of three months, all evidence of stridor disappeared, and he was able to return to normal activities.

His prednisone and azathioprine were tapered to 20 mg/day and 50 mg/day respectively after six months. Repeat spirometry showed improvement of FVC, FEV₁, PEF, and PIF. Flow-volume loop improved but did not return to normal, and residual subglottic scarring is still evident on laryngoscopy.

Discussion

Cicatricial pemphigoid is relatively rare, and is estimated to have a mean annual incidence of approximately 1.4 per 1 million people.³ While there appear to be no racial predilections, women are affected more frequently than men in a 2:1 ratio. Cicatricial pemphigoid occurs primarily in the middle-aged and elderly, with a mean age of onset of 62 years.²

Oral involvement is the most consistent feature of cicatricial pemphigoid. The bulla or vesicle is the characteristic le-

sion, and generally appears insidiously in the mucous membranes of the eye and/or oral cavity. The pharynx, larynx, trachea, and esophagus can be involved, but the skin is affected in only 25% of patients. The lesion commonly follows a two-stage pattern of evolution. Though the first stage progresses slowly, and may last indefinitely, the second stage is marked by rapid progression and extensive mucosal erosion. Untreated, the lesions of the second stage result in scarring.

Oral lesions frequently begin on the gingiva as nonspecific desquamative gingivitis. The vesicles rupture quickly, and it is rare to find intact blisters. Because the oral cavity is subject to constant trauma, and contains numerous microorganisms, the oral lesions may become secondarily infected, prolonging healing. Subsequent laryngeal involvement is reported in 8% of patients with cicatricial pemphigoid.⁴ Progressive disease can produce edema, scarring, and stenosis in the area of the epiglottis and aryepiglottic folds.^{5,6} Tracheal and bronchial involvement has also been previously reported,^{7,8} but subglottic tracheal stenosis has not.

Biopsy specimens are necessary for diagnosis. For routine histopathologic studies, the specimens are taken from the border of the lesion, taking care to avoid disturbing the dermal and epidermal relationships. Subepidermal bullae, with or without inflammation, are found, with deposition of IgG and C3 along the basement membrane demonstrated by immunofluorescence testing. A feature that is specific for cicatricial pemphigoid is a linear deposition of immunoreactants around mucus glands, a finding not present in other blistering disorders. In contrast to the more common bullous pemphigoid, autoantibodies to the basement membrane zone are usually absent with indirect immunofluorescence in cicatricial pemphigoid. Description of the same of the property of the

Treatment depends on the extent and location of the disease and must be individualized. When mild lesions are lo-



Figure 3. The immunofluorescence study showing an interrupted linear basement membrane zone that stained positive for IgG, IgA and C3, confirming the diagnosis of cicatricial pemphigoid.

calized to the oral cavity, treatment centers on meticulous dental care, mouthwashes, topical anesthetics, and topical steroids. In patients with extensive oral involvement, systemic therapy with immunosuppressive agents such as prednisone, azathioprine, and cyclophosphamide are added. Intralesional injections of corticosteroids have been utilized, and dapsone as a single agent has also been successful.¹¹

The patient's prognosis and the efficacy of therapy are difficult to predict, since some patients experience spontaneous improvement without treatment and others progress despite intensive therapy. The mortality from cicatricial pemphigoid is most commonly due to the complications of therapy. This mandates early diagnosis and a careful choice of agents, monitoring for side effects and discontinuation of systemic therapy as soon as possible.2

In patients with pharyngeal or laryngeal involvement, a coordinated patient care plan should include the dentist, primary care physician, ophthalmologist, and otolaryngologist. Adequate control of the disease must be established to prevent significant scarring. In patients who develop laryngeal stenosis or epiglottal edema, an elective tracheostomy may be indicated to avoid obstruction and asphyxiation. However, patients without adequate control who undergo surgical procedures or intubation may experience exacerbation of the

disease, resulting in further damage.

Laryngeal involvement by cicatricial pemphigoid is a rare but treatable cause of upper airway obstruction. 12,13 When vesiculobullous lesions occur in the eyes or oral cavity, laryngeal involvement may be suggested by examination of the flow-volume loop and physical examination. Fiberoptic examination allows biopsy that will direct correct diagnosis and individualized treatment.

References

- 1. Thost A Der chronishe Schleimhautpemphigus der oberen Luftwege. Arch Laryngol Rhinol
 - 2. Mutasim DF, Pelc NJ, Anhalt GJ Cicatricial pemphigoid Dermatol Clin 11:499-510, 1993.
- 3 Bernard P, Vaillant L, Labeille B, et al: Incidence and distribution of subepidermoid autoimmune bullous skin diseases in three French regions *Arch Dermatol* 131.48-52, 1995.
- 4 Bergstrom L: Cicatricial pemphigoid of the upper digestive and respiratory tract. Clin Dermatol 5.36-42, 1987
- 5. Drenger B, Zidenbaum MM, Refer NE, et al: Severe upper airway obstruction and difficult intubation in cicatricial pemphigoid. *Anesthesia* 41:1029-1031, 1986.
- Lazor JB, Varvares MA, Montgomery WW, et al: Management of airway obstruction in cicatricial pemphigoid. Laryngoscope 106:1014-1017, 1996.
 Chemise C, Allen C Death from CP in a young woman with oral, laryngeal, and bronchial
- involvement Cutis 40:426-428, 1987.
- 8 Carvalho CR, Amato MB, DaSilva LM, et al: Obstructive respiratory failure in cicatricial pemphigoid. Thorax 44:601-602, 1989. 9. Fleming MG, Valenzuela R, Bergfeld WF, et al: Mucus gland basement membrane immuno-
- fluorescence in cicatricial pemphigoid. Arch Dermatol 124:1407-1410, 1988

 10. Helm KF, Peters MS. Immunodermatology update: the immunologically mediated vesicobullous diseases. Mayo Clin Proc 66:187-202, 1991
- 11. Siegel MA, Balciunas BA Oral presentation and management of vesiculobullous disorders.
- Semin Dermatol 13:78-86, 1994 12. Fisher I, Dahl MV, Christensan TA. Cicatricial pemphigoid confined to the larynx. Cutis
- Yong AS, Elborn JS, Stanford CF: Cicatricial pemphigoid presenting as upper airways obstruction. Br J Clin Pract 48:47-48, 1994

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Perceived as systemic, the flu is actually an acute respiratory infection primarily restricted to the lungs and airways.

References: 1. Dolin R. Influenza. In: Fauci AS, Braunwald E, Isselbacher KJ, et al. Harrison's Principles of Internal Medicine, 14th ed, New York, NY: McGraw-Hill; 1998:1112–1116.

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A Young Woman With Gastrointestinal Bleeding

Case Report

A 28-year-old previously healthy woman was admitted to Vanderbilt University Medical Center (VUMC) with hematochezia. Her symptoms began one week prior to admission while on vacation in Florida, when she noticed one large melanic stool, followed by bright red blood per rectum, prompting her to seek medical attention.

Her initial hematocrit was reported to be 31%. Flexible sigmoidoscopy showed a large amount of melanic stool in the distal transverse colon. Subsequent colonoscopy revealed bright red blood in the cecum without evidence of bleeding. Esophagogastroduodenoscopy (EGD) showed only two small duodenal erosions. A small bowel follow-through was non-diagnostic, as were both a Meckel's scan and a ⁹⁹Technetium-labeled RBC scan.

The patient's hematocrit remained stable, and she was discharged after five days of hospitalization, only to have recurrence of bleeding approximately 18 hours after returning to Tennessee. On admission to VUMC, physical examination revealed a healthy white afebrile woman with a supine blood pressure and pulse of 110/80 mm Hg and 80/min, respectively. Upright blood pressure was 88/74 mm Hg, with a heart rate of 94/min. Breath sounds were normal, and cardiac auscultation revealed a grade 2/6 crescendo-decrescendo murmur along the left sternal border. Her abdomen was nontender and exhibited normal bowel sounds. Rectal examination demonstrated hemoccult-positive stool.

Laboratory tests showed a leukocyte count of 8,900/cu mm (normal 4,000 to 11,000), platelets 259,000/cu mm (normal 150,000 to 400,000), and hematocrit 28% (normal 37% to 44%). Her prothrombin time (PT) was 12.0 seconds (normal 13.0 to 15.0) and partial thromboplastin time (PTT) was 21.2 seconds (normal 25.0 to 36.0).

Following review of available data from her previous evaluation, a second ⁹⁹Technitium RBC scan was performed. Unlike the initial study, this scan revealed extravasation of blood into the small bowel, but subsequent abdominal

arteriography failed to disclose a source of blood loss. The patient's hematocrit stabilized following transfusion. A repeat colonoscopy, reaching the terminal 20 cm of the ileum, and an EGD with small bowel enteroscopy were both nondiagnostic.

Hematochezia recurred on the fourth hospital day, but a repeat abdominal aortogram again failed to demonstrate active bleeding. Subsequently, an exploratory laparotomy with intraoperative endoscopy was performed. Enteroscopic examination of the small bowel distal to the ligament of Treitz failed to disclose a clear source of bleeding, but palpation of the small bowel revealed a 7-mm mass in the distal jejunum. Pathology examination of the resected mass showed a carcinoid tumor with clear margins. She has had no further bleeding.

Discussion

This case demonstrates the not infrequent difficulty in identifying the source of gastrointestinal bleeding. Sources of occult gastrointestinal bleeding include inflammatory lesions such as esophagitis, gastritis, colitis, and Crohn's disease, and vascular disorders including vessel ectasia, varices, and Dieulafoy malformations. Carcinomas at any site in the gut can also cause occult bleeding. Although carcinoid tumors that involve the intestine may cause bleeding and anemia, it is unusual for the blood loss to be as profound as that seen in our patient.¹

Carcinoid tumors are slow growing malignancies that arise from enterochromaffin cells, and most frequently occur in the gastrointestinal tract.² Within the gut, the most common sites are the small intestine (29%), the appendix (19%), and rectum (13%).² These tumors are frequently asymptomatic, and are usually discovered incidentally at surgery for other abdominal diseases.² When symptoms do appear, they are usually due to local effects of tumor growth. Abdominal pain, obstruction, constipation, diarrhea, and bleeding from the upper gastrointestinal tract or rectum are not infrequent.

Less commonly, patients have symptoms of the carcinoid syndrome. Occurring in fewer than 10% of patients, these symptoms include cutaneous flushing and gut hypermobility

(Continued on page 105)

Prepared by Steve J. Williams, MD, second year medical resident, and David M. Aronoff, MD, the Hugh J. Morgan chief medical resident, Vanderbilt University Medical Center, Nashville. Edited by Jason Morrow, MD.

Department of Health Report

Tobacco Control and Prevention In Tennessee

Joan Sartin

Tobacco use is the leading preventable cause of death in the United States.¹ The Centers for Disease Control and Prevention estimates that 9,359 Tennesseans died as a direct result of cigarette smoking in 1998, making Tennessee seventh in the nation from deaths from smoking. The 1998 Behavior Risk Factor Surveillance System reveals that 26.1% of Tennessee adults are currently smokers. Adult smoking rates have remained relatively stable over the last ten years. Exposure to secondhand smoke (also called environmental tobacco smoke) is associated with lung disease and cardiovascular disease among nonsmokers, and various lung conditions and respiratory and other illnesses in children.²

The CDC projection is that 105,326 Tennessee youth will die prematurely from smoking.³Tennessee conducted its first youth tobacco survey (TnYTS) in the spring of 1999. The TnYTS provides the first baseline middle school data, and additional high school data.

The TnYTS reports that:

- About 50% of Tennessee's middle school students and 78% of Tennessee high school students have used tobacco products, including cigarettes, smokeless tobacco, cigars, and pipes.
- 21% of Tennessee middle school students and 45% of Tennessee high school students reported use on one or more of the 30 days preceding the survey to have used a tobacco product.
- Current cigarette use is 14% in middle school and 36% in high school.
- Tennessee youth are smoking cigars at the rate of 9% among middle school students and 19% among high school students.

The survey provides the state not only with prevalence information, but data on tobacco-related attitudes and knowledge, minor access and enforcement of tobacco laws, and social and media influence on tobacco use and decision-making. The purpose of the TnYTS is to improve the capacity of Tennessee to design, implement, and evaluate its tobacco prevention program.

From the Tennessee Department of Health, Nashville. (St)
Ms. Sartin is director of the Tobacco Control Program.

The Tennessee tobacco control program is funded through a grant from the CDC. The program's four major goals are: (1) to eliminate Tennessean's exposure to environmental tobacco smoke, (2) to prevent initiation of tobacco use among youth, (3) to promote cessation of tobacco use among adults and youth, and (4) to identify and eliminate disparities among various populations. The program is building the infrastructure across the state to support tobacco prevention. Forming partnerships and working directly with the county health councils are necessary for success of the program. Community funding has been provided for tobacco prevention initiatives identified by health councils across the state. Statewide and local strategies will be used to reach the goals.

The program is incorporating best practices from states that have had success in reducing tobacco use. These states have shown that mobilizing and empowering youth in developing and implementing tobacco prevention initiatives is a successful strategy. Tennessee's tobacco staff is making an effort to recruit members to youth groups and coalitions representing the diverse populations in Tennessee. Several groups have emerged from SADD (Students Against Destructive Decisions) and HOSA (Health Occupation Student Association) chapters. In September, two Tennessee youth attended the National Youth Tobacco Prevention conference in Washington, DC. This conference was sponsored by the American Legacy Foundation created by the Master Settlement Agreement. These students helped develop advertisements that will air nationally in early 2000, including prime time and during the Super Bowl. These students will share their knowledge and ideas with other youth throughout the state.

The youth tobacco survey indicates that our youth have the knowledge of the harmful effects of tobacco use but they continue to use tobacco products at a higher level than ever. Ninety percent of students know secondhand smoke is harmful, but unfortunately, almost half of the children in Tennessee live with someone who smokes. The task of the tobacco program is to get the environment to reinforce the messages youth have learned in school. Physicians can play a key role in enforcing the message and promoting quitting among their patients. Simple interventions at patient-physician contacts

can lead to higher long-term quit rates of 5% to 10%. More extensive interventions, including use of nicotine replacement therapy and bupropion hydrochloride, can lead to quit rates significantly higher. If all primary care clinicians provided simple interventions such as asking whether the patient uses tobacco products and suggesting they should not, the national quit rate could double.4

National Cancer Institute—Clinicians treating children should follow the five principles that start with the letter A in counseling about smoking prevention/cessation.

- 1. Anticipate the risk for tobacco use at each developmental stage.
- 2. Ask about exposure to tobacco smoke and tobacco use at each visit.
- 3. Advise all smoking parents to stop and all children not to use tobacco products.
- 4. Assist children in resisting tobacco use; assist tobacco users in quitting.
 - 5. Arrange follow-up visits as required.

States with long-term, well-funded comprehensive pro-

grams have been shown to be successful in reducing tobacco use.5 Community change must occur in addition to individual change. Successful programs not only educate youth about the harmful effects of tobacco use, but take a comprehensive approach involving community programs, school programs, enforcement of minor access laws, cessation programs, media campaigns, and surveillance and evaluation to monitor their efforts.6

References

- 1. Reducing the Health Consequence of Smoking: 25 Years of Progress. A Report of the Surgeon General. DHHS publication no. (CDC) 89-8411. Atlanta, GA, US Department of Health and Human Services, Public Health Service, Center for Disease Reduction, National Center for Chronic Prevention and Health Promotion, Office of Smoking and Health, 1989.
 2. Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders. Publica-
- tion no. EPA/600/6-90/006F. Washington, DC, US Environmental Protection Agency, 1992
- 3. State Tobacco Highlights 1999. Atlanta, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1999. CDC publication no. 099-5621
- 4. The Clinician's Handbook of Preventive Services, ed 2. US Public Health Service, International Medical Publishing, Inc, ISBN 1-883205-32-8, 1998
- 5. "Saving Lives, Tobacco Prevention Works" Brochure from the Campaign for Tobacco-Free Kids, 1999.
- 6. Best Practices for Comprehensive Tobacco Control Programs-August 1999. Atlanta, US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, August 1999

Vanderbilt Morning Report . . .

(Continued from page 103)

mediated by various factors, including histamine, kallikrein, and biogenic amines such as serotonin and prostaglandins secreted by the enterochromaffin cells.3

Carcinoid tumors are the second most common neoplasm encountered in the small bowel after adenocarcinomas.² Further, the incidence of small intestinal carcinoids is likely grossly underestimated because a large number are asymptomatic. In this regard, one autopsy series found that carcinoids represented 95% of all small intestinal primary neoplasms, and 88% were incidental findings.4

Carcinoids of the small bowel often become symptomatic at a relatively advanced stage. Up to 18% of patients with primary tumors in the small intestine may have symptoms of the carcinoid syndrome.² It is believed that the carcinoid syndrome occurs only in the presence of hepatic metastases, and

tumor size is the most predictive feature for the presence of distant lesions.² The lowest risk of metastasis occurs in patients in which the primary tumor is less than 1 cm in diameter. Surgery alone is potentially curative in limited disease but with advanced disease, intravenous octreotide, a somatostatin analog, can be helpful in reducing the symptoms of the carcinoid syndrome.5

References

- 1. Roncoroni L, Costi R, Canavese G, et al: Carcinoid tumor associated with vascular malformation as a cause of massive gastric bleeding. Am J Gastroenterol 92:2119-2121, 1997
- Lauffer JM, Zhang T, Modlin JM: Current status of gastrointestinal carcinoids (review article). Aliment Pharmacol Ther 13:271-287, 1999.
- 3. Sitaraman SV, Goldfinger SE: The carcinoid syndrome, in Rose BD (ed): Up To Date, Ver-
- 4. Berge T, Linell F: Carcinoid tumors. Frequency in a defined population during a 12-year period. Acta Pathol Microbiol Scand 84:322-330, 1976.
- 5. Sitaraman SV, Goldfinger SE: Treatment of carcinoid tumors and the carcinoid syndrome, in Rose BD (ed): Up To Date, Version 7.3, 1999.

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TMA Alliance Report

TMA Alliance Annual Meeting

The Annual Meeting of the TMA Alliance will be held at the historic Knoxville Academy of Medicine Building on April 27-29, 2000. Hosts for the meeting will be Upper East Tennessee county alliances. All county alliances are encouraged to come and join in the activities, which begin with committee meetings and a meeting of the TMAA Board on Thursday. On Thursday evening the Alliance members and guests will board a trolley for a short ride to dinner and entertainment at Riverside Tavern. Nearby, the newest addition to Volunteer Landing is the ten-ton basketball atop the Women's Basketball Hall of Fame.

Delegates will meet on Friday to conduct the business of the Alliance. The luncheon that day will honor past TMAA presidents and current county presidents in historic surroundings on Market Square Mall. On Friday evening Alliance members will honor TMAA President, Brenda Seals, at a reception. On Saturday the meeting will conclude its business with the installation of the 2000-2001 officers.

The TMAA is honored to have guest speakers from the AMAA and TMA bringing greetings and information from their organizations.

A silent auction to raise funds for the AMA Foundation will begin on Thursday morning and end at noon on Friday. This tradition is an important part of the TMAA's fund-raising effort for this very worthy cause. The TMAA invites all Alliance members and TMA members to participate in raising funds for medical schools and medical students.

"Meeting the challenges and making changes for the next century" is President Brenda Seals' theme for the year. All Alliance members are invited and urged to attend the wrap-up and celebration of this year's work.

Information for registration can be found in the Alliance newsletter, *Volunteer Voice*, which will be mailed to members in February, or by contacting Tonya Malzone, TMAA Executive Secretary, at (800) 659-1862, ext. 151.

TMAA Convention Co-Chairs Becky Green and Gloria Williford Sandra Huddleston

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Chattanooga-Hamilton County Medical Society

John W Besing, MD, Chattanooga James J Harber III, MD, Harrison Muhammad A Munir, MD, Chattanooga Christopher E Young, MD, Chattanooga

Cumberland County Medical Society Ernest G Buchanan IV, MD, Crossville

Knoxville Academy of Medicine Jeffrey S Boruff, MD, Knoxville W David Hovis, MD, Knoxville Matthew L Mancini, MD, Knoxville William E Snyder Jr, MD, Knoxville

Memphis-Shelby County Medical Society
John R Crockarell Jr, MD, Collierville
Barbara E Geater, MD, Memphis
Matthew B McClellan, MD, Southaven
Sohail A Minhas, MD, Memphis
Anthony R Pagliarulo, MD, Memphis
Rekha Pillai, MD, Memphis
Mary C Portis, MD, Memphis
Thomas W Ratliff, MD, Memphis
James J Wang, MD, Memphis

Nashville Academy of Medicine Constance J Johnson, MD, Chapmansboro Robert B Knowles, MD, Nashville Micheal LaDoucer, MD, Hermitage

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during November and December, 1999. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Gilbert Bazaldua, MD, Springfield Marc J Crupie, MD, Germantown Robert Diez D'Aux, MD, Greeneville Steven W Garst, MD, Ducktown Barbara Geater, MD, Memphis John M Legan, MD, Dyersburg Richard E McLendon, MD, Memphis Tony J Montgomery, MD, Clarksville Thomas W Orcutt, MD, Nashville Warren C Ramer Jr, MD, Lexington David T Watson, MD, Knoxville Charles W White Jr, MD, Lexington

In Memoriam

Henderson D Blankenship Jr, MD, age 79. Died December 17, 1999. Graduate of University of Tennessee College of Medicine. Member of Hardin County Medical Society.

Boyd P Davidson, MD, age 79. Died December 24, 1999. Graduate of University of Tennessee College of Medicine. Member of Lawrence County Medical Society.

Hillis Evans, MD, age 81. Died January 13, 2000. Graduate of Loma Linda University School of Medideine. Member of Nashville Academy of Medicine.

John B Hamsher, MD, age 79. Died January 5, 2000. Graduate of University of Cincinnati College of Medicine. Member of Memphis-Shelby County Medical Society.

Austin Felix Hughes Jr, MD, age 91. Died October 17, 1999. Graduate of Vanderbilt University School of Medicine. Member of Memphis-Shelby County Medical Society.

John Davis Hughes, MD, age 89. Died November 9, 1999. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

John M Reisser Jr, MD, age 70. Died November 5, 1999. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Robert F Sauter, MD, age 48. Died December 8, 1999. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Personal News

Scott Keith, MD, Smithville, has been elected a Fellow of the American College of Surgeons.

Richard T Light, MD, Nashville, has received the Tennessee Academy of Family Physicians' 1999 "John S. Derryberry MD Distinguished Service Award."

Gregory Neal, MD, Paris, has been elected a Fellow of the American College of Surgeons.

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

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Color Doppler—Asheville, NC

July 17-22 23rd Annual Contemporary Neurology Symposium— Hilton Head Island, SC

Aug 31-Sep 2 6th Annual Fall Neonatology Symposium—Charleston, SC

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

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Continuing Education Schedule

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April 13-14	18th Annual Tennessee Conference on Perinatal and
	Neonatal Care

April 28-29 Rhinoplasty 2000: A Multi-University Course—Emory University, Atlanta

May 18-20 Obstetric Ultrasound

June 1-2 2000 General Surgery Update June 10 The Memphis Eye Convention

June 10 T.O.P.S.

June 16 Pediatric Epilepsy Management for the Primary Care Physician

July 31-Aug 5 14th Annual Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.

Sept 13-16 Newborn Conference

Knoxville

23rd Annual Family Practice Update—Pigeon Forge
16th Annual Alzheimer's Symposium—Gatlinburg
Pediatric Advanced Life Support—Gatlinburg
45th Great Smoky Mountains Pediatric Seminar-
Gatlinburg
Pediatric Life Support

June 26-28 Advanced Cardiac Life Support

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July Advanced Life Support in Obstetrics

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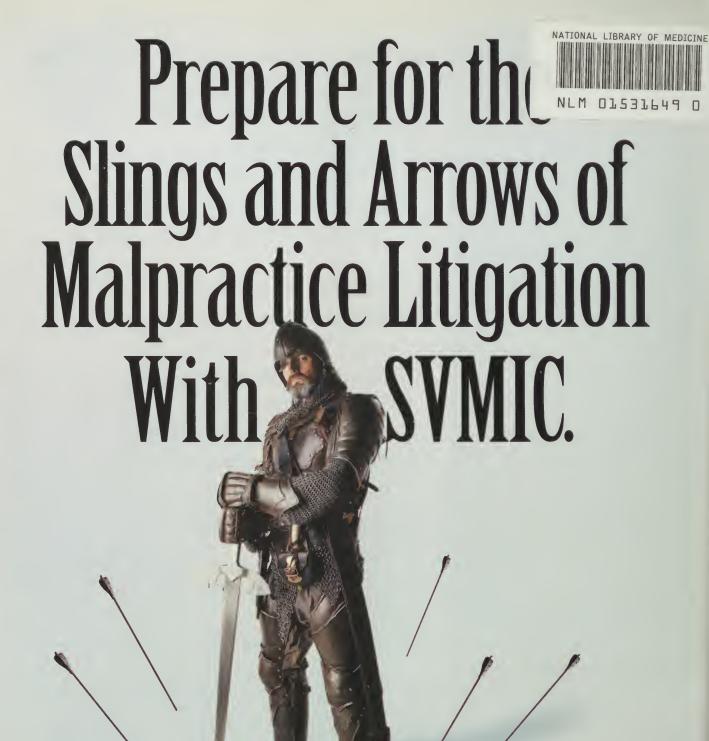
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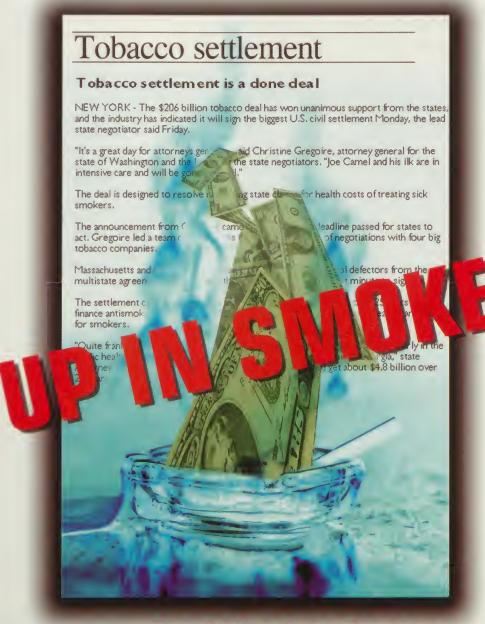
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e-mail jeanw@tma.medwire.org

John B. Thomison, MD

Assistant Editor Robert W. Ikard, MD

Managing Editor Jean Wishnick

Business Manager Donald H. Alexander

Sr. V.P.—Communications
Russ Miller

Advertising Representative Jean Wishnick

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The concomitant use of intranasal corticosteroids with other inhaled corticosteroids could increase the risk of signs or symptoms of hypercorticism and/or suppression of the hypothalamic-pituitary-adrenal (HPA) axis.

Patients who are on immunosuppressant drugs are more susceptible to infections than healthy individuals. Chickenpox and measles, for example, can have a more serious or even fatal course in patients on immunosuppressant doses of corticosteroids. In such patients who have not had these diseases, particular care should be taken to avoid exposure. How the dose, route, and duration of corticosteroid administration affects the risk of developing a disseminated infection is not known. The contribution of the underlying disease and/or prior corticosteroid treatment to the risk is also not known. If exposed to chickenpox, prophylaxis with vanicella zoster immune globulin (VZIG) may be indicated. If exposed to measles, prophylaxis with pooled intramuscular immunoglobulin (IG) may be indicated. (See the respective package inserts for complete VZIG and IG prescribing information.) If chickenpox develops, treatment with antiviral agents may be considered.

PRECAUTIONS:

General: Rarely, immediate hypersensitivity reactions or contact dermatitis may occur after the administration of FLONASE Nasal Spray. Rare instances of wheezing, nasal septum perforation, cataracts, glaucoma, and increased intraocular pressure have been reported following the intranasal application of corticosteroids, including fluticasone propionate.

Use of excessive doses of corticosteroids may lead to signs or symptoms of hypercorticism, suppression of HPA function, and/or reduction of growth velocity in children or teenagers. Physicians should closely follow the growth of children and adolescents taking corticosteroids, by any route, and weigh the benefits of corticosteroid therapy against the possibility of growth suppression if growth appears slowed.

Although systemic effects have been minimal with recommended doses of FLONASE Nasal Spray, potential risk increases with larger doses. Therefore, larger than recommended doses of FLONASE Nasal Spray should be avoided.

When used at higher than recommended doses, or in rare individuals at recommended doses, systemic corticosteroid effects such as hypercorticism and adrenal suppression may appear. If such changes occur, the dosage of FLONASE Nasal Spray should be discontinued slowly consistent with accepted procedures for discontinuing oral corticosteroid therapy.

In clinical studies with fluticasone propionate administered intranasally, the development of localized infections of the nose and pharynx with Candida albicans has occurred only rarely. When such an infection develops, it may require treatment with appropriate local therapy and discontinuation of treatment with FLONASE Nasal Spray. Patients using FLONASE Nasal Spray over several months or longer should be examined periodically for evidence of Candida infection or other signs of adverse effects on the nasal mucosa.

FLONASE Nasal Spray should be used with caution, if at all, in patients with active or quiescent tuberculous Infection; untreated local or systemic fungal or bacterial, or systemic viral infections or parasitic infection; or ocular herpes simplex.

Because of the inhibitory effect of corticosteroids on wound healing, patients who have experienced recent nasal septal ulcers, nasal surgery, or nasal trauma should not use a nasal corticosteroid until healing has occurred.

Information for Patients: Patients being treated with FLONASE Nasal Spray should receive the following information and instructions. This information is intended to aid them in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Patients should be warned to avoid exposure to chickenpox or measles and, if exposed, to consult their physician without delay.

Patients should use FLONASE Nasal Spray at regular intervals as directed since its effectiveness depends on its regular use. A decrease in nasal symptoms may occur as soon as 12 hours after starting therapy with FLONASE Nasal Spray. Results in several clinical trials indicate statistically significant improvement within the first day or two of treatment; however, the full benefit of FLONASE Nasal Spray may not be achieved until treatment has been administered for several days. The patient should not increase the prescribed dosage but should contact the physician if symptoms do not improve or if the condition worsens. For the proper use of the nasal spray and to

attain maximum improvement, the patient should read and follow carefully the patient's instructions accompanying the product.

Drug Interactions: In a placebo-controlled, crossover study in eight healthy volunteers, coadministration of a single dose of orally inhaled fluticasone propionate (1000 mcg, 5 times the maximum daily intranasal dose) with multiple doses of ketoconazole (200 mg) to steady state resulted in increased mean fluticasone propionate concentrations, a reduction in plasma cortisol AUC, and no effect on urinary excretion of cortisol. This interaction may be due to an inhibition of the cytochrome P450 3A4 isoenzyme system by ketoconazole, which is also the route of metabolism of fluticasone propionate. No drug interaction studies have been conducted with FLONASE Nasal Spray; however, care should be exercised when fluticasone propionate is coadministered with long-term ketoconazole and other known cytochrome P450 3A4 inhibitors.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Fluticasone propionate demonstrated no tumorigenic potential in mice at oral doses up to 1000 mcg/kg (approximately 20 times the maximum recommended daily intranasal dose in adults and approximately 10 times the maximum recommended daily intranasal dose in children on a mcg/m² basis) for 78 weeks or in rats at inhalation doses up to 57 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults and approximately equivalent to the maximum recommended daily intranasal dose in children on a mcg/m² basis) for 104 weeks.

Fluticasone propionate did not induce gene mutation in prokaryotic or eukaryotic cells in vitro. No significant clastogenic effect was seen in cultured human peripheral lymphocytes in vitro or in the mouse micronucleus test when administered at high doses by the oral or subcutaneous routes. Furthermore, the compound did not delay erythroblast division in bone marrow.

No evidence of impairment of fertility was observed in reproductive studies conducted in male and female rats at subcutaneous doses up to 50 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults on a mcg/m² basis). Prostate weight was significantly reduced at a subcutaneous dose of 50 mcg/kg.

Pregnancy: *Teratogenic Effects*: Pregnancy Category C. Subcutaneous studies in the mouse and rat at 45 and 100 mcg/kg, respectively (approximately equivalent to and 4 times the maximum recommended daily intranasal dose in adults on an amcg/m² basis, respectively) revealed fetal toxicity characteristic of potent corticosteroid compounds, including embryonic growth retardation, omphalocele, cleft palate, and retarded cranlal ossification.

In the rabbit, fetal weight reduction and cleft palate were observed at a subcutaneous dose of 4 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

However, no teratogenic effects were reported at oral doses up to 300 mcg/kg (approximately 25 times the maximum recommended daily Intranasal dose in adults on a mcg/m² basis) of fluticasone propionate to the rabbit. No fluticasone propionate was detected in the plasma in this study, consistent with the established low bioavailability following oral administration (see CLINICAL PHARMACOLOGY section of the full prescribing information).

Fluticasone propionate crossed the placenta following oral administration of 100 mcg/kg to rats or 300 mcg/kg to rabbits (approximately 4 and 25 times, respectively, the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

There are no adequate and well-controlled studies in pregnant women. Fluticasone propionate should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Experience with oral corticosteroids since their introduction in pharmacologic, as opposed to physiologic, doses suggests that rodents are more prone to teratogenic effects from corticosteroids than humans. In addition, because there is a natural increase in corticosteroid production during pregnancy, most women will require a lower exogenous corticosteroid dose and many will not need corticosteroid treatment during pregnancy.

Nursing Mothers: It is not known whether fluticasone propionate is excreted in human breast milk. When tritiated fluticasone propionate was administered to rats at a subcutaneous dose of 10 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m² basis), radioactivity was excreted in the milk. Because other corticosteroids are excreted in human milk, caution should be exercised when FLONASE Nasal Spray is administered to a nursing woman.

Pediatric Use: Five hundred (500) patients aged 4 to 11 years of age and 440 patients aged 12 to 17 years were studied in US clinical trials with fluticasone propionate nasal spray. The safety and effectiveness of FLONASE Nasal Spray in children below 4 years of age have not been established.

Oral and, to a less clear extent, inhaled and intranasal corticosteroids have been shown to have the potential to cause a reduction in growth velocity in children and adolescents with extended use. If a child or adolescent on any corticosteroid appears to have growth suppression, the possibility that they are particularly sensitive to this effect of corticosteroids should be considered (see PRECALTIONS).

Geriatric Use: A limited number of patients above 60 years of age (n = 275) have been treated with FLONASE Nasal Spray in US and non-US clinical trials. While the number of patients is too small to permit separate analysis of efficacy and safety, the adverse reactions reported in this population were similar to those reported by younger patients.

ADVERSE REACTIONS: In controlled US studies, more than 3300 patients with seasonal allergic, perennial allergic, or perennial nonallergic rhinitis received treatment with intranasal fluticasone

propionate. In general, adverse reactions in clinical studies have been primarily associated with irritation of the nasal mucous membranes, and the adverse reactions were reported with approximately the same frequency by patients treated with the vehicle itself. The complaints did not usually Interfere with treatment. Less than 2% of patients in clinical trials discontinued because of adverse events; this rate was similar for vehicle placebo and active comparators.

Systemic corticosteroid side effects were not reported during controlled clinical studies up to 6 months' duration with FLONASE Nasal Spray. If recommended doses are exceeded, however, or if individuals are particularly sensitive, or taking FLONASE Nasal Spray in conjunction with administration of other corticosteroids, symptoms of hypercorticism, e.g., Cushing's syndrome, could occur.

The following incidence of common adverse reactions (>3%, where incidence in fluticasone propionate-treated subjects exceeded placebo) is based upon seven controlled clinical trials in which 536 patients (57 girls and 108 boys aged 4 to 11 years, 137 female and 234 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 2 to 4 weeks and two controlled clinical trials in which 246 patients (119 female and 127 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 6 months. Also included in the table are adverse events from two studies in which 167 children (45 girls and 122 boys aged 4 to 11 years) were treated with FLONASE Nasal Spray 100 mcg once daily for 2 to 4 weeks.

Overall Adverse Experiences With >3% Incidence on Fluticasone Propionate in Controlled Clinical Trials With FLONASE Nasal Spray In Patients ≥4 Years With Seasonal or Perennial Allergic Rhinitis

	Di	FLONASE	FLONASE
Ve	hicle Placebo (n = 758)	100 mcg Once Daily	200 mcg Once Daily
	%	(n = 167)	(n = 782)
		%	%
Headache	14.6	6.6	16.1
Pharyngitis	7.2	6.0	7.8
Epistaxis	5.4	6.0	6.9
Nasal burning/nasal irritation	1 2.6	2.4	3.2
Nausea/vomiting	2.0	4.8	2.6
Asthma symptoms	2.9	7.2	3.3
Cough	2.8	3.6	3.8

Other adverse events that occurred in \leq 3% but \geq 1% of patients and that were more common with fluticasone propionate (with uncertain relationship to treatment) included: blood in nasal mucus, runny nose, abdominal pain, diarrhea, fever, flu-like symptoms, aches and pains, dizziness, bronchitis.

Observed During Clinical Practice: In addition to adverse events reported from clinical trials, the following events have been identified during postapproval use of fluticasone propionate in clinical practice. Because they are reported voluntarily from a population of unknown size, estimates of frequency cannot be made. These events have been chosen for inclusion due to either their seriousness, frequency of reporting, causal connection to fluticasone propionate, occurrence during clinical trials, or a combination of these factors.

General: Hypersensitivity reactions, including angioedema, skin rash, edema of the face and tongue, pruritus, urticaria, bronchospasm, wheezing, dyspnea, and anaphylaxis/anaphylactoid reactions, which in rare instances were severe.

Ear, Nose, and Throat: Alteration or loss of sense of taste and/or smell and, rarely, nasal septal perforation, nasal ulcer, sore throat, throat irritation and dryness, cough, hoarseness, and voice changes.

Eye: Dryness and irritation, conjunctivitis, blurred vision, glaucoma, increased intraocular pressure, and cataracts.

OVERDOSAGE: Chronic overdosage with FLONASE Nasal Spray may result in signs/symptoms of hypercorticism (see PRECAUTIONS). Intranasal administration of 2 mg (10 times the recommended dose) of fluticasone propionate twice daily for 7 days to healthy human volunteers was well tolerated. Single oral doses up to 16 mg have been studied in human volunteers with no acute toxic effects reported. Repeat oral doses up to 80 mg daily for 10 days in volunteers and repeat oral doses up to 10 mg daily for 11 days in patients were well tolerated. Adverse reactions were of mild or moderate severity, and incidences were similar in active and placebo treatment groups. Acute overdosage with this dosage form is unlikely since one bottle of FLONASE Nasal Spray contains approximately 8 mg of fluticasone propionate.

The oral and subcutaneous median lethal doses in mice and rats were >1000 mg/kg (>20000 and >41000 times, respectively, the maximum recommended daily intranasal dose in adults and >10000 and >20000 times, respectively, the maximum recommended daily intranasal dose in children on a mg/m² basis).

GlaxoWellcome

Glaxo Wellcome Inc. Research Triangle Park, NC 27709 December 1998 RL-645 GLA-01-047M

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President's Comments



James Chris Fleming, MD

You're in Good Hands

As I write this article, I am pleased to report to you that I believe the public views the profession of medicine positively for the first time in many years. The problems with managed care and with HMOs directing patient care instead of physicians directing patient care is finally an issue with the patient as well as with physicians. The patient now realizes that his contract with his insurance company may affect the quality of his health care just as certainly as his relationship with a qualified physician will. In the daily news, we see the problems with managed care addressed, as well as the advent of government taking on a patient-advocate role to address the problems associated with managed care. Obviously, organized medicine is pleased that insurers will finally be called to task in the legal arena for their health care directives and for decisions that can influence their patients' care negatively.

Even as I write, we are looking anxiously at the TennCare program in Tennessee and wondering what the outcome will be. We as physicians are extremely concerned for the patients covered by the program, and how they will gain access to the health care they will need. It is apparent that the legislators should have listened to the voice of medicine when this program was initially set up and implemented. At that time, we tried to point out the problems which would arise. If asked to help forge the direction of whatever plan will evolve to replace TennCare, TMA stands ready to give physician input through our "TennCare Task Force" which is now in place. The TMA is positioned to be active and vocal as this process evolves. Along this same line, as your advocate with the legislature, the TMA is now setting up lines of communication to facilitate improved interaction with you, its members across Tennessee, and thus to improve health care in our state. Inevitably, many changes in health care will come in this new century, and we as physicians need to continue to band together and work together to address and we hope to direct these coming changes.

As my tenure as your president comes to an end, I would like to reiterate how pleased and privileged I have been to represent you this past year. I need to thank Mr. Don Alexander and his staff at the TMA as well as that of the TMA Board of Directors for their help and support. Also, I would like to thank Dr. Barrett Haik, my chairman at the University of Tennessee, Memphis, Department of Ophthalmology, as well as my colleagues, for their support.

I invite you to join us at the Annual Meeting of the TMA in Knoxville, which will be held in late April. I also want to tell you how very pleased I am that your next president will be Dr. Barrett Rosen of Nashville. I have had the opportunity and the pleasure to work with him for several years. There is no doubt that the TMA will be in good hands with Dr. Rosen at the helm.

Together, let's try to focus on our reason for becoming physicians. We want quality health care for the patients we care for, and we as doctors want to be able to continue to direct their health care. Let's all work together to keep our goal to practice "Good Medicine" in the forefront of our colleagues, of the legislature, and most importantly, of our patients, the citizens of Tennessee.

James C Flenrer MD

Editorials



John B. Thomison, MD

Tobacco Settlement Revisited

I thought I was shed of this topic, but I find that avarice and duplicity in the seats of government won't let me turn it loose. In the March issue of *Tennessee Medicine*, Dr. Fleming, our TMA president, addressed the matter directly, and I passed it off with a few offhand comments, thinking that I had disposed of the matter in several previous editorials. In case you have recently been vacationing on the moon, payment of an incredible number of billions of dollars by the tobacco companies has persuaded their pursuers to call off the dogs, and thus they have bought their way out of what would undoubtedly have been an astronomical number of lawsuits. I was interested, by the way, in Dr. Fleming's comment that "Astoundingly, the tobacco companies have shifted this cost to the tobacco users, that is, the tobacco victims."

Before I go any further, as a possible digression, though possibly not, I'd like to say this about that. Excuse me, Dr. Fleming, but nothing could be more natural than that cost shift. Cost shifting is as old as commerce. And, as you said, the tobacco users are tobacco victims. But it does not necessarily follow that they are at the same time victims of the tobacco companies. I know there are people who have a quarrel with that, so as a disclaimer I need to assure you that I have never had any more than casual contact with anybody who grew tobacco, and I have never owned any tobacco stock. I was hooked on cigarettes along with a vast segment of the population. And, as I have said before, I never knew anyone who smoked who believed smoking was anything but bad for them. I quit because it gave me bronchitis and it was a dirty habit that I did not want to bequeath to my children. But my romance with cigarettes was no more the fault of the tobacco companies than that it is the fault of the ice cream manufacturers that people can get fat eating it.

Well, you say, but that's different. It is not. Both can kill you. It's just a matter of degree. Ice cream likely won't make you sick and kill you. Cigarettes likely will. But both companies do their level best to sell their product. And the smokers, like the ice cream lovers, know they do. Users of both take a calculated risk—low with ice cream, high with tobacco smoking,

This is not about that, though. It's not even about the hit dog that hollered. It's some about the hitters, but more about the blood they drew and where its run-off goes.

I'm not going further into that here, either. Suffice it to say that—well, if you've ever seen a carcass out in the field, you know what gets there first. Legitimate claimants have a hard time fighting off the scavengers. Now, there is more than a little loose change that has come to be lying around in Tennessee's yard, and it has stimulated a fast burn in the administration and the legislature as to who can get their hands on what. In this issue of *Tennessee Medicine*, Brenda Williams has written a somewhat lurid account of the situation. Well, maybe I ought to rephrase that. She has written an excellent account of a very lurid situation. The hyenas are snapping not only at the kill, but at each other as well.

I seem to be begging your pardon a lot today, but Excuse me. I thought all that loose largesse stemmed from a desire on the part of everybody, including even the embattled and maybe even sort of contrite tobacco companies, to educate the young on the evil effects of smoking, and to repay to some extent the vast outlays the states have made over the years for treating the victims of tobacco (used properly here). In other words, to quote Senator Curtis Person Jr., to recycle the money so as to correct the problems of the past and prevent them in the future.

Seems we were both wrong. That pragmatic shenanigans are the daily bread of lawmakers is well known to outsiders, and to all but the blindest of the legislators themselves. But to use that tobacco money, which is in fact what is commonly known as "blood money," to fix general budget woes, as some states have already done, and our own legislators are contemplating, is nothing short of arrant dishonesty and larceny. Wherever anti-smoking education has been tried, it has been successful in reducing the impetus for smoking among the young. No person who is serious about protecting the health of our youth could possibly consider diverting funds earmarked from the outset for that purpose. They ought to know that blood money carries a curse.

Anyone who so misdirects the use of such funds automatically brands himself as an enemy of the young.

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

HELP US TO HELP

Call the TMF Physicians Health Program at (615) 665-2516 in Nashville. Telephone message service available around the clock.

Long Term Care

To the Editor:

I am writing to advise every physician to include Long Term Health Care Insurance in their retirement plans.

A number of years ago after being advised to do it I took out this form of insurance for me and my wife. Before her death, my wife was for over six years in a nursing home. The insurance took care of nearly all the expenses of the nursing home.

I estimate that I saved about \$240,000, which is much better than having this amount taken out of my savings.

Waverly S. Green Jr., MD 1 Medical Park Blvd, Suite 450W Bristol, TN 37620

Loss Prevention Correction

To the Editor:

In the Loss Prevention Case of the Month, Postoperative Care—Inattentive Approach, in the February issue of *Tennessee Medicine* (*Tenn Med* 93:56-57, 2000), I want to make the following correction.

In the second paragraph under Loss Prevention Comments, third sentence from the end of the paragraph, the sentence should read: "The answer to this question probably would have called for prompt abdominal exploration." I regret any confusion this may have caused.

J. Kelley Avery, MD PO Box 159012 Nashville, TN 37215-9012



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Tobacco Settlement Dollars a "Burning Issue" for TMA

Brenda Williams

More than 46 states and five U. S. territories have their collective hands outstretched as the tobacco industry digs into its deep pockets to make amends for the ill effects of its product. Even as Tennessee lawmakers debate the best use of an anticipated \$215 million windfall, fears are growing that very few of the tobacco settlement dollars will go toward their intended purpose.

Anti-Tobacco Promises Up in Smoke

In February, *USA Today* lamented the disappointing lack of zeal for funding anti-smoking campaigns. The editorial, quoting a study by the Campaign for Tobacco-Free Kids, stated that only eight states had used their tobacco industry

bequest to attack the problem, and that most states had plugged most of their firstyear funds into tax and budget concerns and building projects. Six states had failed to spend a penny on tobacco control.

Government officials in some of those states argue that anti-smoking programs are unproven commodities, but advocates beg to differ.

"Comprehensive tobacco prevention programs have been proven to work in states that have implemented

them," affirmed Danny Goldrick, research director for the Campaign for Tobacco-Free Kids. California, he said, has reduced its overall tobacco use rate twice as much as the rest of the country; Massachusetts' tobacco use reduction was four times the national average. Florida saw middle school smoking drop by 19% and high school smoking by 8% in the first year of its pilot program; Oregon reduced overall tobacco consumption 20% in three years, including a dramatic decline in teen smoking. "This is what the lawsuits were

brought about for in the first place, and that's the problem of tobacco and the life and dollar cost that it causes," Goldrick emphasized. "We need to solve the problem that brought about the suit and the problems in the first place . . . it's an incredible opportunity that we've never had before."

An East Tennessee pulmonologist agrees with the effectiveness of anti-smoking campaigns. "I think that very aggressively pursued, they do have success, but it has to be a grassroots approach," said Dr. Vincent Viscomi of the Diagnostic Center in Chattanooga, who compares it to the fight against drunk driving. "Initially there wasn't a great change, but in the last decade we've seen a 40% decrease in the number of DUI fatalities, and the reason for that is education in

the print media and televised media: you see it in schools. 'Friends don't let friends drive drunk,' etc., and it's coming home to roost," he said. He added, "But it takes the commitment of money over time and that's what the tobacco settlement brings. And so long as that money comes over time, it's important that we don't abandon it in two years because it didn't work. This is something that requires education, and education takes time."

"In the years I've been practicing in Tennessee, 11 years now, I rarely find a smoker who began smoking in their 20s. Almost everyone starts in their teenage years and that's still true today. And the idea that we spend this money toward educating our children about the consequences of tobacco, before they start, is really where the effort needs to be. Trying to get a 30-year-old to quit is a lot harder than trying to get a 15-year-old not to start."

Dr. Vincent Viscomi, Pulmonologist The Diagnostic Center, Chattanooga

The Legislative Battle Begins

Armed with the proof of successful programs and spurred by the threat of a less-than-visionary approach by Tennessee officials, health groups in the Volunteer State have joined forces to make sure that at least a respectable portion of to-bacco settlement money goes toward smoking prevention and cessation. The Tennessee Medical Association, along with state chapters of the American Heart Association, American Lung Association, and American Cancer Society, formed the Campaign for a Healthy and Responsible Tennessee (CHART). The coalition has spent the past year lobbying legislators, planning media events, and drafting a proposal for the distri-

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

bution of Tennessee's share of the tobacco settlement money.

"We want to make sure that when we get the tobacco settlement dollars they don't go into the general fund, to improve roads or what have you—they need to stay focused on the health care of Tennesseans," explained

TMA's Director of Government Affairs, Scott Smith. "What we're looking at right now is legislation that would set up a council or an advisory board, but in essence they would take the money and spend the interest for health-related matters."

Why not use all of the money for an all-out attack on tobacco? Smith said the Tennessee Tobacco Use Prevention and Reduction Plan recommends depositing the money in a trust-fund because advocates are not sure the money will keep coming. "We hear things about tobacco companies potentially moving assets overseas, and the settlement dollars may not actually span the 25-year period. The reason we don't want to spend the principal is that, to be fiscally responsible, we need to live off the interest."

CHART members are confident they have the backing of most Tennesseans. Margaret Smith of the American Cancer Society said a December survey found overwhelming support for using most of the funds to fight tobacco use:

- 82% of respondents favored using a substantial portion of the tobacco settlement money for youth tobacco use prevention
- 70% supported using half the tobacco settlement money on a comprehensive program to reduce the use of tobacco products in Tennessee
- About 45% would be more likely to vote for a legislator who supported spending some of the settlement money on prevention programs.

"That's important, because we did this survey to see what the lay of the land is out there, where the people think the



Campaign for a Healthy and Responsible Tennessee

money ought to go," Smith said, "and the whole point of having these funds go to keep our kids from starting to smoke was far and away the most important place Tennesseans thought the money should go." The survey of 650 registered voters was conducted by a polling firm contracted by a Nashville public relations house.

Will the polls mean much

"The greatest opportunity in Tennessee is to use this money for the purposes it was intended for—on programs that are proven effective in reducing tobaccouse, saving lives, and saving money."

Danny Goldrick, Research Director Campaign for Tobacco-Free Kids to the lawmakers? State Representative Doug Jackson is already convinced. "I think (anti-tobacco programs are) the appropriate use of the money. Everything we can do to prevent a child from either gaining access to this product or educating the kids so that they will not want access to the product will be a

very, very wise investment that will come back to the taxpayers many, many times over." Five years ago, Jackson cosponsored a bill to restrict youth access to tobacco and says he feels just as strongly about this issue. The Dickson Democrat pledged to sign on as a sponsor for the CHART legislation.

Jackson's cosponsor of the 1995 youth access bill, Memphis Senator Curtis S. Person Jr., said CHART members had not yet approached him, but he favors the group's proposal. "I think this money needs to be recycled, so to speak, in trying to correct the problems of the past and prevent them in the future." However, Person says Tennessee lawmakers may follow the lead of other states and use some of the funds to fix budget woes. "We've got a difficult time ahead," the Republican warned, adding that in an election year, Governor Don Sundquist's 3.75% income tax proposal is likely to fail, leaving the state with a possible \$342-million shortfall. "If we don't come up with new revenues, we'll obviously have to make some budget cuts and utilize whatever monies are out there, including portions of this settlement."

Tobacco Farmers Want Their Share

More fund diversions are possible; under a proposal being floated by the Tennessee Farm Bureau, a large portion of the settlement fund would go to help tobacco farmers grow different crops, although Jackson said it doesn't require that they give up growing tobacco, and for that reason he intends to fight those efforts. "The purpose of the settlement is to reimburse taxpayers who've been paying exorbitant costs to the Medicaid population due to tobacco addiction by Medicaid enrollees," he said, "and to now take this money, which belongs to all of Tennessee, and give it only to one segment is ridiculous. That crop is already subsidized by taxpayers of Tennessee and the entire country."

By contrast, anti-smoking advocates say they support giving some of the money to farmers. "Smokers aren't the only folks addicted to tobacco," said the TMA's Smith. "Farmers and farming communities depend on that income. It's a political reality that the farm bureau will be asking for money for farmers. How much we don't necessarily know, but they shouldn't get it all, by any means."

"We want to help their transition from their dependence onto other viable crops," agreed ACS's Smith. "It's going to be very difficult, but there's a lot of research going on now looking not just at crops that they can grow, but at developing the market for those crops."

The Campaign for Tobacco-Free Kids falls in line with that cautious position. "As we solve the tobacco problem and as that results in hardship on the farmers, we would work with grower communities to see they get grower assistance," said Goldrick. He dismisses the tobacco industry's claim that the farmers' plight has been caused by anti-smoking efforts, arguing instead that the industry's own movements to import tobacco and export labor have had a much bigger impact on domestic production.

Tennessee Physicians Play a Part

It is understood that tobacco is a killer—the Cancer Society's Smith recited the familiar statistics: "We know that smoking is the number one preventable cause of death in the United States; 9,000 Tennesseans die every year from diseases related to tobacco use; every single day 3,000 kids across the country start smoking."

If anyone knows the devastation caused by tobacco, it is the physician. Viscomi sees a lot of lung cancer, and said his patients know it is a death sentence. "The vast majority of patients don't live two years . . . it's a very preventable disease, and that's really what this is all about." He stressed that he and his fellow physicians have a duty to communicate the tragic cost of tobacco use to their patients, and if they don't respond to arguments about the human cost, he recommends arguing the financial cost. "All through their life, it will save them money because they're not spending money on tobacco; they'll also save on life insurance, health and disability insurance, and medications." The TMA Board member added that doctors have a responsibility to lead by example so that their patients don't get a mixed message: "Doctors don't need to smoke."

Physicians can also get directly involved in the tobacco funds debate. "I think it's important for physicians across the state to realize that we have an opportunity here to influence public policy on how much money will be going to preventative measures and exactly where that will be going to be going," said the TMA's Smith, who urges Tennessee doctors to call their lawmakers in favor of funding public health, smoking prevention, and stop-smoking programs. "This is a huge public health issue for physicians to get behind and help out, and ultimately see fewer and fewer children that grow up addicted to tobacco."

Goldrick agreed: "I think if you're talking to doctors, they're obviously as aware or more aware about the devastation tobacco causes, and if they want to do something about it, as the AMA is doing, they will get involved. The greatest opportunity in Tennessee is to use this money for the purposes it was intended for—on programs that are proven effective in reducing tobacco use, saving lives, and saving money."

ADOPTED APRIL 10, 1999

TENNESSEE MEDICAL ASSOCIATION HOUSE OF DELEGATES

Substitute Resolution No. 22-99

Tobacco Industry Lawsuit Settlement

Whereas, The State of Tennessee is scheduled to receive some \$47 billion by the year 2023 from the tobacco industry lawsuit settlement; and

Whereas, Past Tennessee Medical Association (TMA) policy outlines that funds from this settlement should be directed toward increased funding of TennCare to treat tobacco-related disease prevention; and

Whereas, Tobacco-related diseases cost Tennesseans over \$782 million each year in direct medical costs and more than 10,000 Tennesseans die each year from diseases caused by tobacco use; and

Whereas, To make the best use of the tobacco settlement, funds should be spent on a comprehensive program approach and not limited to short-term projects with few long-term effects. Now, therefore be it

RESOLVED, That the Tennessee Medical Association support a multi-pronged approach to spending the tobacco settlement funds to include, but not limited to: (1) Strengthening of state and federal laws that would prohibit the sale of tobacco to minors, (2) Preventative education outlining the dangers of long-term tobacco use, particularly among the nation's youth, (3) Cessation education for all smokers or tobacco users, and (4) Funding to pay for direct medical costs of all Tennesseans who suffer from tobacco-related diseases.

Practicing Medicine

Loss Prevention Case of the Month

What Will Your Colleagues Say?

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

An 18-year-old dancer with a history of miscarriage at age 14 visited her gynecologist to explore the reasons why she could not get pregnant. She had been married to her husband for a year, and both desired to have children. The next week her physician performed a tubal patency test and a D & C, which showed total obstruction of the right fallopian tube and partial obstruction of the left, though dye could be seen passing from this tube into the peritoneal cavity. Both tubes were said to show hydrosalpinx.

She was next seen three months later with a "venereal infection," for which she was treated with antibiotics. The results of the treatment were not documented. Four months after this visit she was seen with severe pain in the right lower abdomen. Pelvic examination at this time revealed what was thought to

be a 5-cm cystic mass on the right, and marked pain on any manipulation of the cervix. She was admitted to the hospital with the diagnosis of acute pelvic inflammatory disease and ovarian cyst. Pain continued to be a predominant part of the patient's complaints, and while in the hospital the physician talked to his patient about the need for further surgery. He stated that they "would not know until we get in there exactly what will need to come out," but he thought they would need to do a hysterectomy. Five days after this admission the patient was taken to the operating room where a total abdominal hysterectomy and bilateral salpingo-oophorectomy

was done. The following day the patient fainted on getting up to go to the bathroom. Examination at this time revealed some tenderness over the lower abdomen and moderate distention. She was taken back to surgery where large blood clots were found in the muscle layer of the abdominal incision. No blood was found in the peritoneal cavity. Between admission to the hospital and the second trip to the operating room the hematocrit had fallen from 41% to 18%, requiring transfusions. She did well following this surgery and was discharged home on the fifth day after the second operation.

The report by the pathologist revealed serosal adhesions. No ovarian cyst was present, and the endometrium was said to be normal secretory. There was evidence of chronic pelvic inflammatory disease.

Two weeks postoperatively, with continued abdominal pain, the patient came to the emergency department (ED) of the hospital where she had her surgery. The physician examined her with ultrasound and found "fluid collection, probably blood" anterior to the bladder. She was observed in the physician's office, and slowly recovered from her pain. Three weeks later she again appeared in the ED complaining lower abdominal pain and inability to void. By catheterization, 300 cc of urine was obtained, and she was found to have a tight urethral stenosis which was dilated to size 26F.

The patient became clinically depressed and was treated for a short time by a psychiatrist. Otherwise, she gradually improved. A lawsuit was filed charging the surgeon with negligence in performing a hysterectomy on this 18-year-old patient, performing surgery that was not clinically indicated, performing surgery without obtaining informed consent, and failure to recognize complications of the operations. No experts could be found to support the gynecologist in this case, and a high six-figure settlement was required.

Loss Prevention Comments

The question raised in the title is *not* a rhetorical one! It is a very real and almost universal one in the world of medical malpractice litigation. The importance of the question was again played out in the investigation and testimony of "experts" in this situation.

From the first, "experts," both defense and plaintiff, raised serious objections to this surgery in an 18-year-old woman

who first came to this physician complaining that she could not get pregnant. Since her marriage to her present husband a year before, pregnancy had not occurred and both were distressed because both wanted a child. The doctor did a tubal patency test that showed one tube completely obstructed and the other open but stenotic. There was no discussion of other techniques for infertility, i.e., artificial insemination, and even other more sophisticated procedures. At the very least, all believed that this surgery should not have been done on this patient without a longer period of observation and treatment. Another gynecologist should have been consulted in order to have a legitimate second opinion supporting the planned course of treatment.

There was strong criticism of the lack of a documented informed consent. The surgeon seemed to rely totally on the standard hospital form granting permission for the planned surgery. Although there was testimony by a nurse that she witnessed the signing of the form, the patient stated that she did not understand the full implication of the form she signed. He husband stated that his wife seemed "drugged up" when she signed it. Despite the physician's testimony that he did talk to his patient about the possibility of hysterectomy and

its implications, he did not document any of that conversation. He further admitted that he did not speak to this young woman about any alternatives to operation that could have been successful in allowing her to become pregnant. The plaintiff experts were especially strong on this point, and the defense experts frankly stated that they could not help the surgeon on this very important question.

There were other charges of negligence as to the postoperative follow-up and the bleeding into the incision. This and the urethral stricture were considered to be true hazards of the procedure and were not emphasized by either defense or plaintiff experts except that the postoperative bleeding should have been a part of the informed consent discussion.

What will your colleagues say? If you are sued, you may sink or swim depending on the answer to that question. After all, the answer to that question establishes the standard of care to which you will be held by the law. The required settlement underscores the importance of consultation with another specialist before sterilizing an 18-year-old woman, and of documenting in the record the informed consent discussion as to details of the operation, its implications for the patient, and alternative forms of treatment that should be considered.

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Barrett Frank Rosen, MD

TMA's 146th President

At the dawn of the new millennium, with history behind us and the world ahead of us, our Tennessee Medical Association stands prepared for the future. As our Association evolves to meet the needs of today's physicians, we welcome the proven leadership of our 146th president—Barrett F. Rosen, MD.

Dr. Rosen, a board certified orthopaedic surgeon, was born in Dalton, Georgia, and completed his undergraduate work at Cornell University. He earned his medical degree from the Medical College of Georgia in 1968, and completed his residency at the University of Louisville. He was a staff orthopedist in the United States Air Force as a major.

In his "training" to become head of the state's largest physician organization, Dr. Rosen gave, as many have before him, countless volunteer hours to his professional organization. Over the years, his service for the TMA has included various terms on the Board of Trustees, of which he was vice-chairman for one year, participation in the Communications and Public Relations Committee, and he was a delegate to the TMA House of Delegates for several years.

Locally, Dr. Rosen is a member of the Nashville Academy of Medicine. There, he has served as a Board member, President, and Chairman of the Board. He is also a member of the Nashville Orthopaedic Society, the Nashville Surgical Society, the Southern Orthopaedic Association, and the Clinical Orthopaedic Society. He has also been President of the Medical Board and a member of the Board of Trust at Centennial Medical Center.

Dr. Rosen also belongs to the American Academy of Orthopaedic Surgery and the American Medical Association. He was a clinical assistant professor of orthopaedics at the Chattanooga Unit of the University of Tennessee College of Medicine.

Dr. Rosen serves on the Board of The Temple. He enjoys playing golf and following other sports,



particularly the Tennessee Titans and the Nashville Predators.

Dr. Rosen is married to Carolyn. Their son, Andrew, is an orthopaedic resident at Mount Sinai Medical Center in New York. Their daughter, Stephanie, is an attorney who is now a full-time mother of two; and Lauren, their youngest daughter, is a physical therapist. □



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Original Contribution

Hamilton County Physicians' Experience With Managed Care

M. Mark Taslimi, MD; Phyllis E. Miller, MD; William H. Hicks, MPH

Introduction

Continuous and disproportionate rises in national health care costs prompted health care policy makers and purchasers to develop and implement managed care policies as an approach to provide effective costcontainment measures. In the process, little input was solicited from health care providers. Not surprisingly, physician discontent with managed care is common across all settings of health care.1,2 For example, Tenn-Care, Tennessee's version of managed Medicaid, was implemented in 1994. Providers had little input in designing the TennCare program. TennCare has failed to establish a dialogue with

Tennessee physicians or their representative organizations. Furthermore, TennCare has failed to entice the systems changes necessary to accomplish its stated sweeping and bold reforms.3,4

In 1998, the Medical Society of Chattanooga and Hamilton County (MSCHC) formed a Managed Care Round Table to study the systems problems of managed care in Southeast Tennessee and to establish a dialogue with insurers. A survey was designed to examine physicians' attitudes and satisfaction with managed care.

From the Medical Society of Chattanooga and Hamilton County, Chattanooga.

Reprint requests to Department of Obstetrics and Gynecology, University of Tennessee, 979 East Third Street, Chattanooga, TN 37403 (Dr. Taslimi).

ABSTRACT

Background: Widespread physician participation in managed care over the last several years prompted this survey of the members of the Medical Society of Chattanooga and Hamilton County.

Methods: A 36-item questionnaire was mailed to all members of the Medical Society.

Results: Ninety-six responses from solo practitioners and groups representing 325 physicians were analyzed. More than 80% of respondents believed that managed care has affected the quality of patient care negatively and 71.8% believed managed care policies have compromised their patient care. More importantly, 90% said insurers have not secured their input in policy development. Referral processes were regarded as cumbersome or impossible by 78.2%. Regression analysis showed a significant relation between issues of too much managed care control, cumbersome referral processes, and physicians' opinion on impact of managed care on quality of patient care.

Conclusions: Physician dissatisfaction with managed care in Hamilton County appears widespread and is mainly related to issues of too much managed care control over daily patient care, which physicians feel results in compromised

quality of patient care.

Materials and Methods

In November of 1998, MSCHC conducted a written survey on managed care among its members. Thirtysix questions addressed the following topics: practice demographics (2), practice style (5), resource allocation to managed care activities (2), contractual relations with managed care organizations (MCO) (4), physician satisfaction with operational quality of managed care organizations (10), quality of patient care under managed care (9), accurate and timely payment for physician services (3), usefulness of a contract review service via the Medical Society (1), and the last question asked for

physician's comments. Twenty-five questions were to be answered as "yes" or "no," and the remaining questions were fill-in-the-blank type. Responses were analyzed for frequencies, and validity of responses was tested by cross-correlation between answers to related questions. Access database (Microsoft Corporation, Redmond, WA) and SPSS, PC version 7.5 statistical software (SPSS Corporation, Chicago) were used for data entry and analysis. Chi-square, Pearson product correlation, and regression analysis were used when appropriate. Significance was considered at $P \leq 0.05$.

Results

One hundred and nineteen responses were received from the 707 members surveyed. During the same interval there were 998 active physicians in Hamilton County. Multiple responses from the members of the same medical groups were compiled into one response per each group by choosing the most complete response and complementing the missing fields from the responses received from other physicians in the same group. Ninety-six responses from solo and group practices were included in the analysis. The answers were not weighted according to the size of the group, except for frequency statistics on demographics and MCO membership status. The 96 responses represented 325 physicians, including 45 solo physicians, 19 two-physician groups, and 32 threeor-more-physician groups. We received 20 responses from primary care physicians (PCP) and 76 responses from specialists. Group size for PCPs was 3.4 (± 2.9) and for specialists was 3.4 (\pm 5.0). Ninety-three percent of respondents said they participated in one or more of the top nine local managed care entities. Each respondent participated in an average of 5.7 (±2.4) and a median of six MCOs. Participation rates in various MCOs, whether commercial or TennCare, ranged from a low of 17% for Phoenix (now Xantus) to a high of 86% for BlueCare—the BlueCross TennCare product. Participation in TennCare was lower for PCPs (45.0%) than specialists (71.1%); the difference, however, was not statistically significant.

Four questions addressed the referral process. Among specialists, 82.9% required a valid referral before they would see the patient, and 78.2% found the referral process to be "cumbersome" or "impossible."

We asked the physicians to estimate the percentage of their staff time devoted to managed care activities. The range of responses was wide (5% to 90%) with an average of 52.5% for PCPs and 43.8% for specialists. There was not a significant correlation between percent of staff time devoted to managed care activities and the group size (R. = -.025) or whether the group participated in TennCare (P = 0.27). There was a strong correlation between number of physicians, clinical staff size (R. = 0.9), and administrative staff size (R. = 0.6, P = .01). Of interest is the finding that only 27.1% of physicians said they verify patient insurance eligibility before they see the patient.

Two respondents (2.1%) opined that managed care has affected the quality of patient care "positively" and 78 (81.3%) answered "negatively," with no significant difference between PCPs and specialists; six respondents (6.3%) answered "no change" and 10 (10.4%) answered "not sure." Sixty-nine respondents (71.8%) said that managed care policies have compromised their ability to care for their patients and 87 (90.1%) said insurers have not secured physician input in policy development. Physicians also said that insurers have never conducted a survey to ascertain physicians' satisfaction regarding the efficacy of pre-certification policies (88.5%), payments (91.7%), or referrals (87.5%). When asked if they have ever contacted an insurer to question the efficacy of a policy or the process for implementing a certain

policy, 70% of respondents said "yes," and of those, only one-third said that the problem was resolved. Seventy respondents (72.9%) said their phone calls were not answered promptly, 73 (76%) said messages/correspondences were not returned promptly, and 58 (60%) said their calls/messages were not routed to a "qualified" or " authorized" person. Respondents reported a mean of 5.3 (±3.4) days of delay in receiving an answer to a message or correspondence.

Reported time spent "holding" on the telephone was 3 minutes to 45 minutes with a mean of 16.2 (\pm 9.7) and a median of 12 minutes, and was the same for PCPs as specialists. There was a positive correlation between telephone "holding" time and percent staff time dedicated to managed care activities (R. = 0.31, P = 0.05)

One-third of the respondents operated an on-site laboratory and 48.5% of those said that managed care has imposed limitations on their capacity to perform on-site laboratory testing; 65.2% said those limitations have compromised their diagnostic capabilities. Twenty-eight respondents (39.6%) said transport of patient specimens has compromised the integrity of the specimen. Of those, 94.7% had experienced rejection of the compromised specimen by the reference laboratory. Eighty-seven respondents (90.6%) said they believed that their patients' needs could be better served if they were given greater flexibility in determining appropriateness of diagnostic testing.

Seventy-nine respondents (72%) thought formularies limited their patients' ability to receive appropriate medications. However, 50% of respondents said they could get insurers' approval for out-of-formulary drugs.

We analyzed the relation between physicians' perception on how managed care has affected the quality of patient care in general and physicians' responses on specific indicators of quality of patient care. Regression analysis showed a significant relation between physicians' perceptions of quality of care and specific issues of too much managed care control, on-site laboratory testing limitations, inflexibility in ordering tests, formulary limitations (P = .000), difficulties with referral processes (P = .001), and whether the physician routinely verified insurance eligibility before the patient was seen (P = .025). There was not a significant relation between physicians' perception on what impact managed care has had on the quality of patient care and whether the group participated in TennCare, the delays in responding to physician messages and correspondences, or problems of transportation of specimens. Ninety-two respondents (95.8%) believed present policies give insurers too much control over medical care decisions.

Fifty-two respondents (54.2%) said they did not receive payments on "clean claims" in a timely manner. The delays ranged from 83 to 114 days for the seven reported MCOs with a mean of 95 (± 10.9) days. The longest delays were

reported for the two MCOs that had the smallest provider participant panel among the respondents.

Seventy respondents (72.9%) said they filed claims electronically, with no significant correlation with timeliness of payment. Sixty-one respondents (63.5%) said payments had been denied despite pre-certification.

Both PCPs (65%) and specialists (66%) responded that the insurers' plans do not include adequate specialist panels, with no differences based on participation in TennCare. Sixty-five respondents (67.7%) said they would benefit from having a contract review/analysis service by the Medical Society.

Discussion

The financial well-being of the health care system in our country is in jeopardy. The components of the health care system—individual consumers, purchasers, insurers, and the providers—all have failed to establish ongoing dialogue and to define common, mutually beneficial goals. The result is a disjointed system in which the providers are querulous. Our findings confirm the previous reports of others suggesting widespread physician dissatisfaction with managed care. 4-6 The common themes of physician discontent are lack of control over clinical care and delayed and discounted payments for services. Two recent reports specifically have addressed physician discontent with TennCare, 4,6 Tennessee's managed Medicaid program. Yet, the majority of primary care and specialist physicians who responded to this survey participated in TennCare products. This is in part related to a controversial contract provision of the commercial BlueCross/ BlueShield preferred provider organization (PPO) product, which required its providers to participate as well in Blue-Cross/BlueShield of Tennessee's TennCare product. Findings of our survey among physicians in Hamilton County mirror national and statewide findings, and provide more details on physicians' perception of quality of patient care in relation to managed care's exertion of control over medical and business aspects of health care. Managed care in Tennessee shares many characteristics with managed care in the rest of the nation.

Our survey represents primary care and specialist physicians practicing both solo and in small, and medium-size groups. Altogether, 325 physicians were represented. Responses imply that there is little dialogue between physicians and MCOs; the relationship is mostly a unilateral decision-making process, essentially a dictatorship. Physicians are attempting to meet MCO requirements regarding the referral process; 82% of respondents required a valid referral before they would see the patient; this while 78% find the referral process "impossible" or "cumbersome." While the survey shows that a large amount of staff time is devoted to man-

aged care activities, only 27% of respondents verified insurance eligibility before the patient was seen by the physician. Once a patient arrives at a physician's office with a valid referral from a colleague, the patient will be served by most respondents regardless of insurance eligibility. Insurance verification is not a barrier to treatment provided by physicians. Thus, physicians are assuming the risk of nonpayment rather than denying care to their patients.

Our survey indicates that physician-driven efforts have economized on clinical staff time, and to a lesser extent administrative staff time, by forming larger groups. However, percentage of staff time spent on managed care-related activities does not decrease significantly by increasing physician group size. Conversely, our responses indicated that efficient claim filing, including clean claim filing and electronic claim filing, does not result in timely receipts of payments.

Success of any MCO is dependent on an adequate base of PCPs and a critical minimum number of specialists on its panel. Both PCPs and specialists, regardless of TennCare participation, said that MCOs do not have an adequate number of specialists on their panels.

The majority of the respondents expressed a negative perception regarding the effect of managed care on quality of patient care, which correlated with patient care issues such as formulary limitations, laboratory testing limitations, transport of laboratory specimens, and referral for specialty care. However, no significant correlation was found between physicians' perception of quality of care and issues of office management difficulties under managed care. Furthermore, physician opinion on the impact of managed care on patient care quality did not correlate with any of the communication issues with managed care, except for the answer to the question "have you or your staff contacted an insurer to question the efficacy or process of implementing a certain policy?", which correlated with a yes answer. Together, the responses explained 80% of physicians' opinion on quality of patient care under managed care, indicating physicians' perseverance in seeking the best care for their patients in a less than optimal environment.

References

- 1. Warren MG, Weitz R, Kulis S: Physician satisfaction in a changing health care environment. The impact of challenges to professional autonomy, authority, and dominance. *J Health Soc Behav* 39:356-367, 1998
- Simon SR, Pan RJ, Sullivan AM, et al: Views of managed care—A survey of students, residents, faculty, and deans at medical schools in the United States. N Engl J Med 340:928-936, 1999.
- 3. Bailey JE, Van Brunt DL, Mirvis DM, et al: Academic managed care organizations and adverse selection under Medicaid managed care in Tennessee. *JAMA* 282:1067-1072, 1999.
- 4 Sloan FA, Conover CJ, Rankin PJ: Physician participation and nonparticipation in Medicaid managed care: the TennCare experience. South Med. J. 92:1064-1070, 1999.
- Gold MR: Contemporary managed care. Readings in structure, operations, and public policy. Chicago, Health Administration Press, 1998.
- TMA survey of MCOs rates plans mediocre on service indicators. The TMA Chart, November/December 1999.

Original Contribution

Natural History of Isolated Ventricular Septal Defect in the First Five Years of Life

Ashok V. Mehta, MD; Seema Goenka, MB, BS; Balasubrahmanyam Chidambaram, MD; Fawwaz Hamati, MD

Introduction

Isolated ventricular septal defect (VSD) is the most common congenital heart defect, forming 30% to 50% of all congenital heart defects at birth. In our two recent prospective studies, the prevalence of VSD is as high as 5.7 per 1,000 live births. 1,2 In our previous publication,1 we reported overall incidence, the prevalence of muscular and perimembranous defects in our region, and the rate of spontaneous closure of VSD in 124 consecutive infants with clinical diagnosis of VSD in the first year of life. We compare the clinical outcome with regard to spontaneous and surgical closure of perimembranous and muscular VSDs at the end of both the first year and five years in the same group of children.

ABSTRACT

Background: Isolated ventricular septal defect (VSD) is the most common congenital heart defect. Incidence, prevalence, and clinical outcomes of VSD have been reported to vary significantly in different geographic areas. Spontaneous closure of VSD, in children, by various methods has been described.

Hypothesis: This prospective study was undertaken to evaluate natural history of patients with VSD in the first five years of life in the Northeast Tennessee and Southwest Virginia region.

Methods: Between December 1, 1998 and October 31, 1990, 124 infants were diagnosed clinically with isolated VSD. VSDs were classified as muscular, perimembranous, malalignment, or subpulmonic types by 2-dimensional echocardiogram with color flow mapping. Cardiac catheterization and angiocardiography were performed in 14 patients when clinically indicated. These patients were followed for at least five years.

Results: Overall spontaneous closure of VSD was 34% at one year and 67% at five years. Twenty-five percent of perimembranous and 4% of muscular VSDs required surgery by five years. The spontaneous closure rate of muscular VSD was twice that of the perimembranous type, though the relative distribution of both types was almost equal. Overall, 22% of children with VSD need follow-up after the fifth year of life.

Conclusion: The overall clinical outcome of muscular VSD was consistently better than that of the perimembranous type, though 17% of muscular VSDs, irrespective of size, were open at 5 years of age and needed long-term follow-up.

All infants with murmurs were referred for further diagnosis and management by their physicians to the only pediatric cardiologist (AVM) in this region. Patients with complex heart lesions, coarctation of aorta, atrioventricular canal defect, or a malalignment defect as a component of tetralogy of Fallot were excluded from the study, as the outcomes in these lesions were largely influenced by several other factors. Patients with associated patent ductus arteriosus, atrial septal defect, mild pulmonary or aortic stenosis, or tricuspid insufficiency were not excluded. All patients had a complete history and physical examination by the pediatric cardiologist. Of the 124 infants, 98 had a 2-dimensional echocardiogram with pulsed Doppler and

color flow mapping in all standard views. The study was performed using a Hewlett-Packard 500 or VingMed CFM 700 or 1,000 Cardiac Imager with 5 or 3.5 MHZ phased-arry transducer. VSDs were classified as muscular, perimembranous, malalignment, or subpulmonic types.³ Cardiac catheterization and angiocardiography were clinically indicated and performed in only 14 patients. Children were followed at our office until at least October 31, 1995, so that most of the patients had a minimum of five years follow-up. After our initial evaluation, a few patients were followed primarily by

Materials and Methods

Between December 1, 1986 and October 31, 1990, 124 infants in the Northeast Tennessee and Southwest Virginia region were diagnosed with VSD as the primary or solitary congenital heart lesion, and were included in the study.¹

Supported partially by Children's Miracle Network Telethon, Wellmont Foundation, Kingsport.

Reprint requests to Tri-City Pediatric Cardiology, 1 Professional Park Drive, Suite 12, Johnson City, TN 37604 (Dr. Mehta).

their pediatricians. The VSD was considered spontaneously closed if a murmur was not heard either by us or seen on the repeat echocardiogram. For various reasons, an echocardiogram was not performed in 26 patients with a VSD, and this group was defined as unclassified VSDs.

Results

The incidence of VSD in this region under study was about 5.7 per 1,000 live births (124/22,000). Of 98 infants (59 male and 39 female) with complete echocardiographic study, 51 had a muscular VSD and 47 had a perimembranous VSD. None were identified as having a subpulmonic defect. One patient had two discrete muscular VSDs, and four others had two jets in close proximity; none of them required invasive studies. Only one patient developed aortic valve prolapse with mild aortic insufficiency by echocardiogram between 3 and 7 years of age, and had a successful surgical VSD closure. None had a subaortic ridge or right ventricular muscle bundle during follow-up. Of 124 infants, 118 (95%) had at least one year and 115 (93%) had five years follow-up. Since the study compared the course at one year and five years, infants without full follow-up at the end of each period were excluded from statistical calculations at that period of the study. The results are tabulated in Table 1 and Table 2 for one year and five years respectively. Overall, spontaneous closure was 34% at one year and in 67% at five years. At both periods, the closure rates of muscular VSDs were higher than the perimembranous VSDs. Surgical intervention, as mandated by the patients' symptomatology and hemodynamic indices, was required in 6% and 11% at one and five years respectively in the whole study group. However, by five years 25% of perimembranous VSDs and 4% of muscular VSDs required surgery. Only 22% of VSDs (17% of the muscular group versus 33% of the perimembranous group) were open by five years. There were two deaths, one in each of the groups. Both of these infants had surgery for significant clinical symptoms, but died of unrelated causes and were therefore not excluded from the statistical analysis.

Discussion

In the last 30 years, several authors have reported spontaneous closure of VSDs by various methods in children. However, Doppler color flow mapping has made the diagnosis, localization, and follow-up of VSD easy and more accurate. Using this technique, we^{1,2} and others^{4,7} reported increased incidence of VSD, mainly of the ventricular musculature, and also more precise numbers on their spontaneous closure. The current study, a prospective follow-up of patients with a clinical diagnosis of isolated VSD, irrespective of size, represents the natural history of VSD during the first five years of life. The overall rate of spontaneous closure of both muscular and perimembranous VSD is 34% at the first year and 67% at the

TABLE 1

OUTCOME OF PATIENTS WITH VENTRICULAR SEPTAL DEFECT
AT THE END OF FIRST YEAR

Type of VSD (No. of patients with full 1 year follow-up)	Sex M/F	Closed No. (%)	Surgery No. (%)	Open No. (%)	LFU No.
Muscular (49)	30/21	20 (41)	2 (4)	27 (55)	2
Perimembranous (46)	29/81	11 (24)	5 (11)	30 (65)	1
Unclassified (23)	11/15	9 (39)	-	14 (61)	3
Total (118)	70/54	40 (34)	7 (6)	71 (60)	6

F=female; LFU=lost to follow-up; M=male; VSD=ventricular septal defect.

end of five years. These findings closely match the observations by other authors. ^{5,8,9} However, the relative distribution of muscular and perimembranous VSD has changed from 20%:80% in earlier studies ^{10,11} to an almost equal distribution in our study. This supports the finding of a higher relative incidence of muscular VSDs by Trowitzch et al. ⁴ Recently, Roguin et al ⁷ from Israel and Hiraishi et al ⁶ from Japan reported a very high incidence of muscular VSD (20 to 53.2 per 1,000 live births) by routine Doppler color flow mapping in all newborn infants, with or without clinical evidence of heart disease. Similarly, Du et al ¹² from Israel recently reported a high incidence (56.6 per 1,000 live births) of muscular VSD in preterm infants.

Our study has also shown that the spontaneous closure rate of muscular VSD at one year and five years (41% and 79% respectively) is approximately twice that of perimembranous VSD (24% and 42% respectively). With regard to development of congestive heart failure and need for surgery, the prognosis in infants with muscular VSD is consistently better than those with perimembranous VSD. A large number (25%) of the latter group needed surgery during the period of study, all of those operated upon having significant symptoms and/or high pulmonary to systemic blood flow ratio. In this group, 33% of children had a persistent perimembranous VSD at 5 years of age and needed long-term follow-up, compared to 17% of children with muscular VSD; overall, 22% needed long-term follow-up after the fifth year

TABLE 2

OUTCOME OF PATIENTS WITH VENTRICULAR SEPTAL DEFECT
AT THE END OF FIVE YEARS

Type of VSD (No. of patients with full 5-yr follow-up)	Closed No. (%)	Surgery No. (%)	Open No. (%)	LFU No.
Muscular (47)	37 (79)	2 (4)	8 (17)	4
Perimembranous (45)	19 (42)	11 (25)	15 (33)	2
Unclassified (23)	21 (91)		2 (9)	3
Total (115)	77 (67)	13 (11)	25 (22)	9

LFU=lost to follow-up; VSD=ventricular septal defect.

of life. Recently, Onat et al¹³ reported 23% incidence of spontaneous closure of isolated VSD during adolescence between the ages of 7 and 17 years. If we combined our current data with that of Onat et al,¹³ 16% of all children with VSD will need long-term follow-up as adults. Our study also confirms that clinical or echocardiographic aortic regurgitation is uncommon in the first five years of life. In contrast, frequency of aortic valve prolapse and aortic regurgitation associated with perimembranous VSD is approximately 7% to 10% in adolescence,¹³ and needs long-term follow-up.

Though the majority of our study subjects had 2-dimensional echocardiography with color flow mapping, 26 of the 124 patients did not, and were hence unclassified, which is a limitation in our study. These children, however, were prospectively followed, and their clinical outcome analyzed with respect to spontaneous closure and need for surgery. In addition, a very small number of children with VSD but without a detectable murmur may have been missed; this would probably cause a slight underestimation of the incidence of VSD in our study.

Conclusion

A definitive diagnosis and localization of VSD by Doppler color flow mapping in infancy is important for prognosis and counseling, and from a surgical standpoint. The clinical outcome in muscular VSD is consistently better than in perimembranous VSD with respect to spontaneous closure, clinical symptoms, and need for surgical intervention. We would also emphasize that 17% of all muscular VSDs, irrespective of size, were open in our series at 5 years of age and needed long-term follow-up. □

References

- 1. Mehta AV, Chidambaram B: Ventricular septal defect in the first year of life. Am J Cardiol 70:364-366, 1992.
- Anand R, Mehta AV: Incidence of cardiovascular malformation in the Northeast Tennessee and Southwest Virginia area. Am J Cardiol 78:610-611,1996.
- Hagler DJ, Edwards WD, Seward JB, et al: Standardized nomenclature of the ventricular septal defects, with application for two-dimensional echocardiography. Mayo Clin Proc 70:741-752, 1985.
 Trowitzsch E, Braun W, Stute M, et al: Diagnosis, therapy and outcome of ventricular septal
- Trowitzsch E, Braun W, Stute M, et al: Diagnosis, therapy and outcome of ventricular septal defects in the 1st year of life: a two-dimensional color Doppler echocardiography study. Eur J Pediatr 149:758-761, 1990.
- Moe DG, Guntheroth WG: Spontaneous closure of uncomplicated ventricular septal defect. Am.J. Cardiol 60:674-678, 1987.
- Hiraishi S, Agata Y, Nowatari M, et al. Incidence and natural course of trabecular ventricular septal defect: two-dimensional echocardiography and color Doppler flow imaging study. J Pediatr 120:409-415, 1992.
- 7. Roguin N, Du Z, Barak M, et al. High prevalence of muscular ventricular septal defect in neonates. J Am Coll Cardiol 26:1545-1548, 1995.
- Hoffman JIE, Rudolph AM: The natural history of ventricular septal defect in infancy. Am J Cardiol 16:634-653, 1965.
 Alpert BS, Cook DH, Varghese J, et al: Spontaneous closure of small ventricular septal de-
- Alpert BS, Cook DH, vargness J, et al. Spontaneous closure of small ventricular septal defects: ten year follow-up. *Pediatrics* 63:204-206, 1979.
 Becu LM, Fontan RS, Dushane JW, et al. Anatomic and physiologic studies in ventricular
- septal defects. Circulation 14 349-364, 1956
 11. Milo S, Ho SY, Wilkinson JL, et al: Surgical anatomy and atrioventricular conduction tissues of hearts with isolated ventricular septal defects. J Thorac Cardiovasc Surg 79:244-255, 1980.
- of nearts with isolated ventricular septial defects. *J Thorac Cardiovasc Surg 19,244-25*5, 1980.

 12. Du Z, Roguin N, Barak M, et al: High prevalence of muscular ventricular septal defect in preterm neonates. *Am. J Cardiol* 78:1183-1185, 1996.
- 13. Onat T, Ahunbay G, Batmaz G, et al: The natural course of isolated ventricular septal defect during adolescence. *Pediatr Cardiol* 19:230-234, 1998.

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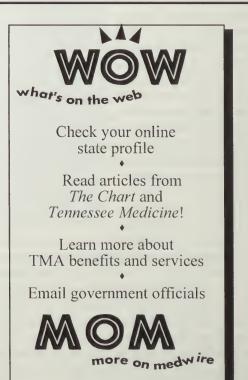
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The Journal

Trauma Rounds

Percutaneous Transluminal Angioplasty of an Acute Traumatic Renal Artery Occlusion

Connie Lutkevich, MD; John R. Hall, MD; James V. Lewis, MD; George M. Testerman, MD; Larry Westerfield, MD; Woodrow W. Reeves, MD

Introduction

The ideal treatment of traumatic occlusion of the renal artery is unclear. While most would agree with immediate repair of an injury detected less than four hours post-injury, those detected after prolonged warm ischemia can be treated with either repair or observation. Unfortunately, due to the difficulty in making the early diagnosis, this latter group is the most common. In addition, with nonoperative management of solid organ injury now becoming the norm, a nonsurgical alternative for the treatment of renal artery injuries is attractive.

Percutaneous transluminal angioplasty has become quite successful in the treatment of arterial injury. We present a case of its use in the management of a 19-year-old woman with an acute traumatic renal artery occlusion.

Case Report

A 19-year-old woman was transferred to our Level One Trauma Center eight hours after being involved in a motor vehicle crash. The initial abdominal CT scan revealed a grade 3 splenic laceration, a liver laceration, and a non-perfused left kidney. Additional injuries included a T-12 fracture, an olecranon fracture, and metacarpal fractures. The patient had remained stable from the time of the accident requiring minimal resuscitative fluids. We elected to manage her liver and spleen injuries non-operatively.

The question remained as to the management of her kidney. It was felt that operative repair was unwarranted due to both the length of ischemic time and the decision to manage her other organs non-operatively. A left renal arteriogram demonstrated occlusion of the left renal artery approximately 1.5 cm from its origin in the abdominal aorta (Fig. 1). The other visceral arteries appeared normal, and no active bleed-

ing was demonstrated in either the liver or spleen. We then elected to perform transluminal renal angioplasty with surgical standby.

A Rosen guidewire was placed across the occluded left renal artery, and a balloon catheter was inserted over the guidewire. The balloon was inflated three times for 15 to 20 seconds, with resultant reperfusion of the kidney (Fig. 2). Nuclear medicine renogram performed the next day revealed normal uptake and excretion of the tracer material, with minimal tracer accumulation within the kidney and no evidence of obstructive uropathy. We thought this was due to acute tubular necrosis, and observation was continued.

The patient recovered from her injuries, and follow-up angiogram and duplex ultrasound one month later revealed



Figure 1. Left renal arteriogram demonstrating occlusion of the left renal artery approximately 1.5 cm from its origin in the abdominal aorta.

From the Wellmont - Holston Valley Medical Center, Kingsport, and the Department of Surgery, James Quillen College of Medicine, East Tennessee State University, Johnson City.

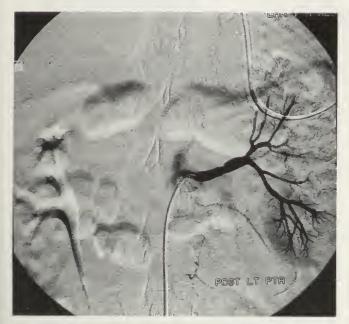


Figure 2. Resultant reperfusion of the left kidney following percutaneous transluminal angioplasty.

only a small irregular defect in the main left renal artery, with a small left pseudoaneurysm (Fig. 3). The nephrogram revealed an irregular and mottled kidney, with only small segments showing normal function. At approximately two months post-injury, an elective left nephrectomy was done through a flank incision.

Discussion

Due to the prolonged warm ischemic time, "conservative management" of this injury would most likely be observation. The published data suggest a warm ischemia time limit of four hours for return of significant renal function.1 The young age of this patient warranted a trial of repair. Operative repair might have necessitated a splenectomy, and would have subjected the patient to all of the long-term complications of intra-abdominal exploration. Because such complications as vascular rupture were considered, a surgical team and room were on standby. Because of the unknown longterm effects of a stent in a young patient with a "normal" artery, a stent was not used in this patient. Known complications of a stent include myointimal hypertrophy, and occlusion or malpositioning.² It might well have prevented the subsequent pseudoaneurysm, however, and should be considered in future cases. Reports of use of this technique in the trauma patient are rare, 3-5 but there are now two subsequent case reports in trauma patients in the literature.^{6,7} In patients with renovascular hypertension, it may be the procedure of choice.8-10 While not therapeutic, its use was beneficial in our patient, as it did reperfuse the kidney, and spared



Figure 3. Small left pseudoaneurysm two months after procedure.

her an intra-abdominal operation. Its use should be further investigated in a multi-institutional trial.

References

- 1. Peterson NE: Genitourinary trauma, in Feliciano, DV, Moore EE, Mattox KL (eds): Trauma, ed 3. Stamford, CT, Appleton and Lange, 1996, p 668.
 - 2. Baert AL: Renal artery stent placement. Radiology 191.619-621, 1994.
- 3. Whigham CJ, Bodenhamer JR, Miller JK: Use of the Palmaz stent in primary treatment of renal artery intimal tear secondary to blunt trauma J Vasc Intervent Radiol 6:175-178, 1995.

 4. Goodman DNF, Saibil EA, Kodamar RT: Traumatic intimal tear of the renal artery treated by
- insertion of a Palmaz stent. Cardiovasc Intervent Radiol 21:69-72, 1998
 - Bryniak SR, Morales A Blunt trauma to renal artery. *Uralogy* 8:379-381, 1976.
 Villaz PA, Cohen G, Putman III SG, et al: Wallstent placement in a renal artery after blunt
- abdominal trauma. J Trauma 46:1137-1139, 1999.
- 7. Paul JL, Otal P, Perreault P. Treatment of posttraumatic dissection of the renal artery with endoprosthesis in a 15-year old girl. *J Trauma* 47:169-172, 1999.

 8. Klinge J, Mali WP, Puijiaert CB, et al: Percutaneous transluminal renal angioplasty: initial and long-term results. *Radiology* 171:501-506, 1989.
- 9. Dorros G, Prince C, Mathiak L: Stenting of a renal artery stenosis achieves better relief of the obstructive lesion than balloon angioplasty. Cathet Cardiovasc Diagn 29:191-198, 1993.

 10. White CJ, Ramee SR, Collins TJ, et al: Renal artery stent placement: utility in lesions
- difficult to treat with balloon angioplasty. J Am Coll Cardiol 30:1445-1450, 1997.

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Department of Health Report

Bioterrorism: A Public Health Issue

William L. Moore, MD

During the closing weeks of 1999, the U.S. State Department and the Department of Defense received threats of possible acts of terrorism against U.S. citizens and other U.S. interests around the world. Travelers and expatriates were advised not to alter personal plans, but to exercise increased caution. As recently as January 3, 2000, the Centers for Disease Control and Prevention issued a Public Health Advisory to state health departments informing them that numerous communities throughout the country had received letters postmarked from Cincinnati, Ohio on December 30, 1999 claiming to contain anthrax bacilli. During 1998 and early 1999, nearly 6,000 persons across the United States were affected by anthrax-related threats, most by letter or telephone.2 Although no anthrax has been found so far, these threats must be taken seriously. The CDC has recommended actions to be taken by those receiving such mail.

Bombings of the World Trade Center in 1993 and the Murrah Federal Building in 1995; the Aum Shinryko sarin attack in a Tokyo subway in 1995; and the U.S. Embassy bombings in Kenya and Tanzania in 1998 are all examples of increasing terrorist activity involving explosives and chemical agents.3 The Rajneeshee religious cult in Dalles, Oregon, caused at least 751 cases of Salmonella infection by intentionally contaminating restaurant salad bars in an attempt to influence the result of an election.4 With these types of weapons, the effects are sudden and dramatic, and large numbers of casualties can be generated very quickly.

There is reason to believe that biological agents, used alone or in combination with more conventional weapons of mass destruction, will become more common in the future. Biological weapons (BW) have been used to some extent throughout history.5 Both Allied and Axis nations developed offensive BW capability during WW II. Some authorities have estimated that as many as 17 countries have BW capability today. It is certain that Russia and Iraq possess BWs.

Many of the candidate BW organisms are ubiquitous in nature or can be easily and inexpensively acquired from a variety of sources. Although a number of organisms have been considered for use as weapons, the most likely ones are hospitals and clinics, private practices, public health clinics, and representatives from the above-mentioned agencies. TABLE 1

shown in Table 1. Characteristics of the most likely agents

include infectivity, virulence, toxicity, pathogenicity, incu-

bation period, transmissibility, lethality, and stability. They can be grown and harvested with readily available, techni-

cally unsophisticated equipment. Even obtaining crude,

unpurified toxins from organisms such as Staphylococcus or

Clostridium botulinum is straightforward. Not only are agents

inexpensive and easy to produce, they can be delivered very effectively without full weaponization. Virtually all of them

can be delivered by aerosol generators, and depending on

the quantity available and certain meteorological conditions,

can generate huge numbers of casualties. Unlike explosives,

firearms and chemical agents, biological agents can be used covertly. Disadvantages in the use of biological agents are

inherent danger to the terrorists producing and handling them,

vulnerability of agents to adverse environmental conditions,

and unpredictability of effect because of factors over which

will occur, and it has unquestionably been established as a

credible threat, establishing planning and response programs

are essential if morbidity and mortality caused by BW agents are to be limited. Effective response to acts of bioterrorism

will require coordinated response of members of a wide va-

riety of agencies. These will include federal, state, and local law enforcement; firefighters; emergency medical person-

nel; public health and private sector providers; state and lo-

cal governments; probably the military; and media representatives at a minimum. The planning and training will involve

Once we accept the possibility that bioterrorism can and

the terrorists will have little or no control.

ORGANISMS CONSIDERED FOR USE AS BIOLOGICAL WEAPONS **Bacterial Diseases Bacterial Toxins** Anthrax Botulinum toxin

Brucellosis Staphylococcal enterotoxin B Cholera Viral Diseases Plague Arboviral encephalitides Viral hemorrhagic fevers Q Fever

Tularemia Smallpox

This is not a comprehensive list but serves to illustrate the point. Although smallpox has been eradicated, there remain some laboratory specimens that could be converted to offensive weapons.

From the Tennessee Department of Health, Nashville. Dr. Moore is Director, Communicable and Environmental Disease Section at TDH.

There is ample evidence that we as a nation are not prepared to respond effectively to an act of biological terrorism. Peskin et al⁶ conducted a survey in 1998 of 118 emergency medicine residency programs to ascertain the level of training on biological warfare being provided as a component of training. Only 53.3% of the 76 respondents indicated that their residency program included formal training in BW management. The authors conclude that there is a relative lack of training and education in BW in emergency medicine residencies. They also found a general sense of inadequacy on the part of responding emergency medicine physicians to recognize and treat BW casualties.

In addition to planning, conducting exercises, education and training, there are other components of preparedness that must be addressed. During this fiscal year the Department of Health and Human Services is spending \$158 million to prepare for bioterrorism and an additional \$72 million has been requested for the fiscal year 2000 budget.⁷ This money will enhance improvement in surveillance—the ability to detect and identify the agents used in a biological attack. Biological agents are likely to be released surreptitiously and may have incubation periods of days to weeks. Individuals exposed are likely to have dispersed from the site of attack, and may consult many different practitioners in scattered sites as their illnesses develop. Lack of familiarity with the presentations of these illnesses will be common among these providers.8,9

Improvements in epidemiology, surveillance, and the ability to communicate the information widely will become key components of a robust response capability. Further enhancements in laboratory ability to rapidly identify bioagents is necessary for prompt intervention. These funds will also be used to improve medical and public health infrastructure, build a stockpile of drugs and supplies, and conduct research and development, particularly development of new and more effective vaccines.7

There are clues to an attack by bioagents. These include outbreaks of unusual or rare agents, occurrence of large numbers of cases widely dispersed geographically, outbreaks at the wrong time of year or occurrence of organisms in places they are not usually encountered (e.g., plague in Tennessee), clusters of cases with unusual drug susceptibility patterns, and an increase of animals dying of infrequently seen zoonoses.8 Most of the diseases that would be encountered in a bioterrorist attack would be unfamiliar at the local level, where practitioners will be seeing many of these patients. Part of the educational effort should be directed at improving this knowledge base of providers throughout the state.9 Well in advance of any terrorist act, resources should be identified and means established to provide rapid specialty consultation on demand.

Several scenarios to support training exercises have been developed. For example, the aerosol release of 100 kg of anthrax spores could infect 1 to 3 million people in the Wash-

ington, DC area, exceeding the number of casualties generated by a nuclear device.3 It becomes obvious that such a catastrophe would rapidly overwhelm the health care system, public safety, and other agencies needed to respond to an incident of this magnitude. The likelihood of an act of bioterrorism of this magnitude is not known; but given the terrorist events of the last two decades, it is almost certain that some kind of terrorist event employing biological agents will occur. Planning and preparing to respond to an incident of this nature is important and deserves broad support of the medical community—public and private—as well as the public at large.□

References

- 1. Shaw SK: Public Health Advisor, Public Health Practice Program Office, Centers for Disease
- Control and Prevention Public Health Advisory, Jan 3, 2000.

 2. Stem J: Anthrax incidents hoaxes and threats. National Symposium on Medical and Public Response to Bioterrorism Washington DC, Feb 16, 1999.
- 3. Richards CF, Burstein JL, Waeckerle JF, et al Emergency physicians and biological terrorism Ann Emerg Med 34:183-190, 1999.
- 4 Torok TJ, Tauxe RV, Wise RP, et al: A large community outbreak of salmonellosis caused by intentional contamination of restaurant salad bars. JAMA 278:389-395, 1977.

 5. Christopher GW, Cieslak TJ, Pavlin JA, et al. Biological warfare: a historical perspective. JAMA
- 278.412-417, 1997.
- Peskin N, Kiem M, Sampson TR. Do US emergency medicine residency programs provide ad-equate training for bioterrorism? Ann Emerg Med 34 173-176, 1999
- 7. Shalala DE: Bioterrorism: how prepared are we? Emerg Infect Dis 5:492-493, Jul-Aug 1999. 8. NATO Handbook on the Medical Aspects of NBC Defensive Operations. AmedP-6(B) Part 11 Biological pp 2-2, Feb 1996.
 9. Eitzen EM: Education is the key to defense against bioterrorism. *Ann Emerg Med* 34:221-223, 1999.

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TMA Alliance Report

Why Are Children Killing Children?

Violence grabs the headlines. We have become a society that accepts violence in our own homes through TV, movies, and video games. Did you know that 96% of the video games sold in the United States have violence as a theme? Our children are becoming more and more desensitized, and the need for more violence, more blood, and more realism has taken over. According to recent studies, the average child of 18 years will have witnessed over 200,000 violent acts on TV, with 16,000 of these being murders. Gun violence now takes a child's life in the United States every three hours. Violent crimes among 15-year-old boys has increased 265% over the past four years.

While attending the AMA Alliance Confluence a couple of years ago, I had the privilege of hearing David Walsh, PhD, describe the effects of the violence our children are experiencing, mostly through "entertainment." It was chilling. I had no idea the extent of what our children were being exposed to, especially in regards to video "games." I wonder how many of you are aware of the graphic nature of the games your children are playing in your own home.

One of the focuses of the TMA Alliance this year is violence among children—especially gun violence. We are very proud that almost every alliance in our state is promoting SAVE in their county. The AMA Alliance SAVE (Stop America's Violence Everywhere) campaign began in 1995 and started the SAVE Schools from Violence campaign this past year. The workbooks and activities contained in this program are unique among materials available for children in elementary school. Thousands of these workbooks have been distributed among elementary school children in Tennessee. Please check with your local county alliance and ask them about the SAVE campaign. If they aren't participating, encourage them to do so. If they are already participating, thank them for their efforts on behalf of our children.

Brenda Seals TMAA President

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In Memoriam

James Thomas Holder, MD, age 75. Died January 21, 2000. Graduate of the University of Tennessee College of Medicine. Member of Blount County Medical Society.

John O. Kennedy, MD, age 88. Died January 29, 2000. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

Marion Young, MD, age 85. Died February 11, 2000. Graduate of Jefferson Medical College. Member of Chattanooga-Hamilton County Medical Society.

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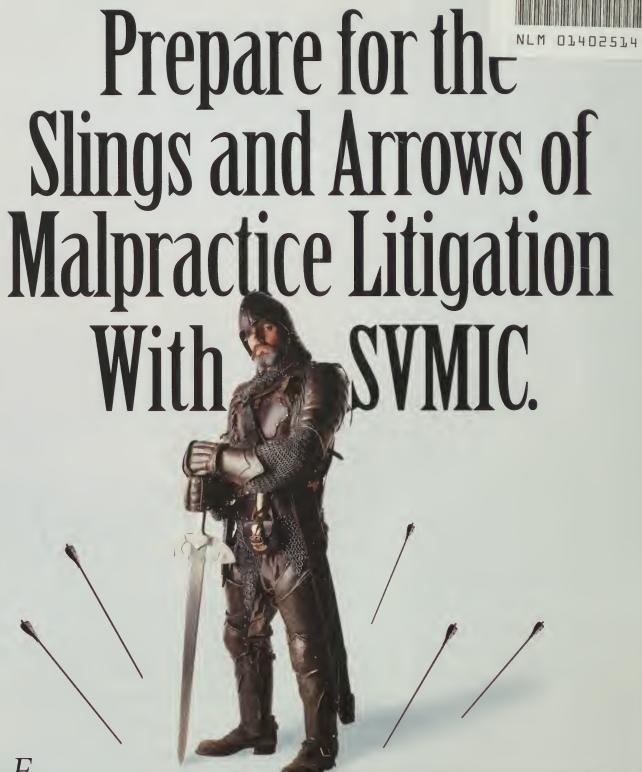
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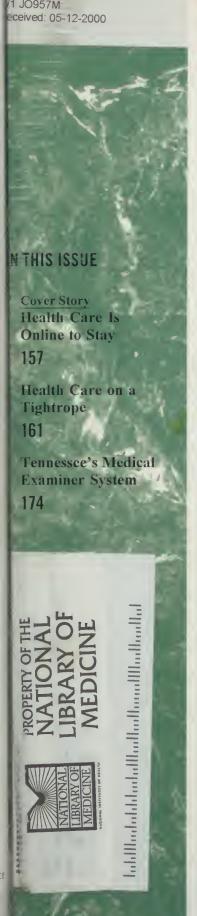




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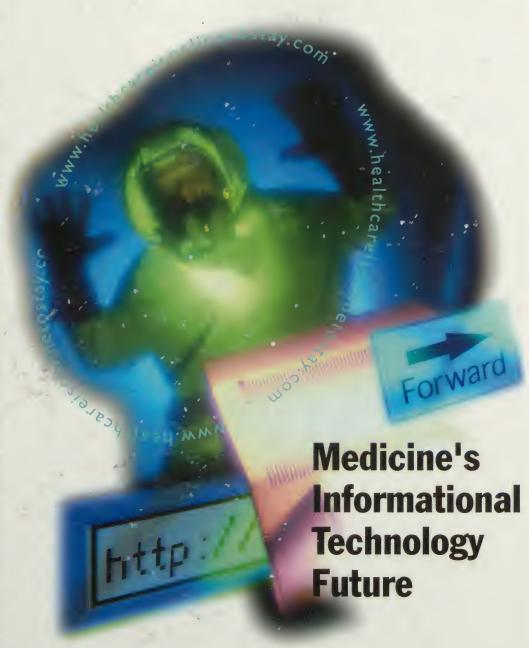
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2301 21st Avenue South PO Box 120909 Nashville, TN 37212-0909 Phone (615) 385-2100 Fax (615) 383-5918 e-mail jeanw@tma.medwire.org

Editor

John B. Thomison, MD

Assistant Editor Robert W. Ikard, MD

Managing Editor Jean Wishnick

Business Manager Donald H. Alexander

Sr. V.P.—Communications
Russ Miller

Advertising Representative Jean Wishnick Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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President's Comments



Barrett F. Rosen, MD

Toward a United Voice

As I assume the office as your president, I do so with a mixture of humility, excitement and fear. Realizing that we are entering a new millennium, I know that this will be a year of challenges and opportunities. I pledge to try to make the most of these chances for the betterment of our patients and the TMA. I will need the help of each of you to accomplish these goals.

The entire health care system in Tennessee is at great risk because of the effects of TennCare. Your Board of Trustees has tried to be proactive to offer what we see as reasonable suggestions to make the program viable. We realize that there is great danger in letting the whole plan implode. To make it work, we must be a part of any solution. By the time this is published, the Governor's task force may have been able to cut through the morass and solved everything, but I doubt it. We can only hope that they will do all that is necessary to make TennCare viable.

As the TMA moves in the 21st century, we must try to make sure that we are doing what is necessary to meet the needs of our members. We have begun an extensive process to try to determine what changes will be needed to accomplish this goal. Certainly the practice of medicine is changing rapidly from many directions. We must make sure that we add the services that our members will require, e.g., electronic communications. Though I did not grow up with the same computer literacy and ease that my children have, I realize the critical need to add these types of services. I can assure you that your Association is already doing a lot of this, and plans are underway to keep going. Members with expertise in these areas are encouraged to make themselves available to help with this project.

It is most important that we all work together as we go forward. The less fragmented Medicine is seen to be, the more effective our voice will be. While our membership in specialty societies is important, we must not let that supercede our membership in the TMA and AMA. I am often asked "why should I belong to the AMA when they do not represent everything I want?" My answer is always that while not all of us will always agree with everything that the organization says and does, it is the only national voice that even attempts to speak for all of us! The greater the number they can speak for, the more effective they can be. Let us all work together as one federation.

Again, I pledge to give my best effort to make this a year of worthwhile activities which will make each of us proud to be known as TMA members. Thank you for your trust and support.

BauttoRound

Editorials



John B. Thomison, MD

The Appearance of Evil

Every God-fearing person has always been taught to shun evil because God demands it. The non-God-fearing also shun evil, though for more pragmatic reasons, which incidentally work just as well for the God-fearing. Ranking high among those reasons is the embarrassment or worse of getting caught. A bit tighter stricture is the avoidance of even the *appearance* of evil, which is generally self-imposed for one or more of a variety of reasons, probably chief among which is that it's easier to stay out of trouble that way. Too, there are also those who work very hard at avoiding the appearance of evil so as not to have to avoid the evil itself, since evil can be quite alluring.

The often unforeseen problem that arises more frequently than one might expect is the matter of definitions, and so I will start out with one. The word evil has become politically, and even religiously, incorrect, except as applied to people like Hitler and Stalin, and has been replaced by such euphemisms as "mistake" or "wrongdoing." I use evil here the old-fashioned way, which in a broader sense includes those other terms. If one is to avoid evil, one needs to know for starters what the authorities, or even simply people-watchers, consider evil. Even when the law is clear, public opinion is often divided. Time and again throughout history it has happened that the same one who is lauded for preaching the gospel in one corner of a building has been chased away or even arrested next door for meddling.

One of the best known of Nature's laws is that of Murphy, which, in case you've had a lapse, says that if anything can go wrong it will, and its corollary, that if nothing can possibly go wrong, it will anyhow. Or, life is what happens to you while you're planning something else. The government has suddenly discovered that Murphy's Law also works in medical realms just as it does everywhere else, and it has become convenient for them to make political hay from that eventuality. Things happen to patients, and when they do they are now being classified as mistakes by the "non-cognoscenti," which includes not only the non-medical laity, but also the myriad lay amateur doctors, many of whom got their training off the Internet or worse. In fact, such so-called mistakes are quite often no more than the expected poor results of desperation procedures. Though misadventures do of course occur, they are often the fault of no one, and not traceable to anyone's lack of skill or training. Whatever their cause, all poor results tend to get tarred with the same brush.

Every time the government has gotten its hooks into anything having to do with medicine (among most other things) they have screwed it up, and it has wound up as a calamity for the patients. I was about to say except for administrative things, but thinking about it, I withdrew that. The government is now proposing to search for and catalog all the poor results, which they keep referring to in various pejorative terms, such as medical mistakes—as if they could have been avoided by proper diligence and expertise. Well, certainly some could have been with a bit more attention to detail, but such detail is not infrequently a victim of operating in a crisis mode. Some other mishaps could have turned out differently with a more propitious fallout of the dice. Only in a very narrow sense were those actual mistakes. It should be apparent that such a search and destroy crusade as that being proposed can only result in exactly that—a witch burning.

Almost to a man—and woman, where appropriate—doctors shun evil, at least medically they do, as doctors always have, unlike politicians and governmental functionaries, who are generally more careful to shun the appearance of evil, though not always even that. Occasionally evil does befall the doctor, and by indirection, his patient. It may or may not hurt the doctor as much as or even more than it does the patient, but either way it is a blow to his professional

pride of accomplishment and to his compassion for the patient. Reporting and publicizing these things, getting them enmeshed in governmental protocol, can do nothing but harm. It will do nothing to help that patient, and it will harm not only the doctor, but by indirection the whole system of patient care and the patients in it.

As if the threat of costly litigation weren't enough, present over-regulation, leading in some cases to allegations of criminal negligence, with the possibility of heavy fines or imprisonment, already have many doctors running scared, and those who aren't quite there yet, apprehensive. In my opinion, the remarks from the AMA to the effect that proposed federal legislation will drive the "mistakes" underground omit a significant factor in the equation. Though such misadventures might be thereby decreased, the situations in which such misadventures could be expected to arise most certainly will. Doctors are already becoming less anxious to tackle the critical case or to attempt last ditch stands, and that added degree of caution will often mean curtains for poor John Doe. A great deal of time and effort is already being spent by doctors and other medical personnel protecting their backsides. The next step is the avoidance of even the appearance of evil. It is dangerous for the patient when the definition of evil lies only in the eye of the beholder.

Especially when those beholders are the meddlesome, medically untutored minions of Big Brother.

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Health Care Is Online to Stay

Brenda Williams

There's something for everyone on the Internet, and it has never been more true than for the health care industry. Whether you are a patient, a physician or other provider, an insurer, an investor, or just a health consumer, you can cast your net on the World Wide Web and reel in vast amounts of health information and a growing variety of services that promise to meet your needs.

Log onto DrKoop.com and you'll see the mantra of the growing online medical community neatly summarized in a quote from its namesake, Dr. C. Everett Koop: "The best prescription is knowledge." Knowledge is out there, and accessible with the stroke of a key, and the medical world seems cautiously optimistic about its benefits and possibilities.

Big City Group Easing Into the Web Stream

"I see a lot of exciting things happening, and I'm in favor," says Dr. Andrew Vernon, a member of TMA's Electronic Information Oversight Committee. Vernon says he currently leads the e-parade within his 25-doctor, multispecialty group at the Diagnostic Center in Chattanooga. While the group is doing more electronically—establishing networks with hospitals, laboratories, and radiology departments to access information and enhance patient care—the Diagnostic Center still keeps all of its medical records and charts on paper. Vernon predicts the eventual transfer from paper to hard drive, once software and storage capacity improves. He sees more computerization ahead, but is taking it one day at a time. "Since we're in a large group, not everybody's on the same page computer-wise, and it's a gradual process getting everybody in the group to become more comfortable with computers, the Internet, with electronic information. You have to have the comfort level, and I'm in the process of developing that here."

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

Small Rural Group Dives In

In Sparta, Cumberland Family Care is completely electronic, according to TMA member Dr. Ty Webb. "Just on the practical day-to-day stuff, it's easy to access the chart. All you need is the terminal. From home I can dial in and access the chart; for admitting patients to the hospital, you've got their whole history there electronically, there's nothing to photocopy, all you do is cut and paste into an H&P. It's a time saver." Webb says his office uses multifunction software for patient records, prescription writing, and electronic billing. Computer linkups are especially valuable for rural physicians who may not have timely access to the latest medical literature. Webb says he uses online resources to access medical libraries, do research, and keep up with Continuing Medical Education (CME) programs from professional organizations like the American Medical Association (AMA) and the American Academy of Family Physicians (AAFP).

Web Offers a Pool of Knowledge For Patients

Both physicians say the World Wide Web is a great resource for their patients. Vernon has developed his own Web sites, with links to health sites that will give patients the latest information about their condition. "If somebody comes into a busy clinic, it's difficult to answer all of their questions and explain everything," Vernon says. "They could go in and look up a lot of the information on their computer. I don't mind if they find an article on the Internet and e-mail it to me, or if they ask me about their medications and side effects. I don't mind their doing more research, because they're a participant in their own treatment."

Webb agrees, with caution. "Probably the biggest limitation I see is patients not knowing where to go for good information. There's a lot of crud out there—articles touting an unproven treatment for some particular disease, etc. A lot of patients come to me and say, 'I found this on the Internet, what do you think?' We've got to be aware of what's out there. Even if we don't access this information, we'd better be aware, because our patients are into it."

Will there come a day when patients shun the doctor's office for the Internet? Unlikely, since Internet physician sites can be cost-prohibitive. A recent study by the University of Pennsylvania School of Medicine found that cyber-consul-

tations cost 15% more than office visits, with no insurance accepted; drugs sold online run 10% higher than store-bought, before adding the shipping charges, usually another \$8 to \$25. Researchers also concluded that Internet doctors are not necessarily reliable—a recurring warning that the Internet itself does not lend credibility.

Vernon is quick to add that even online resources aimed at physicians can be a disappointment. For example: "I have not been particularly happy with WebMD." He

cites frustration at trying to access the physicians-only section of the site, sending repeated e-mail requests for a password and getting no response. "This (site) would be an incredibly useful tool, offering insurance verification, for instance, and WebMD has been promising something like that, but they haven't followed through. I think they've been kind of heavy on the marketing but light on actually getting it done."

Web Health Companies Working Out the Bugs

The rough stumbles of Internet health sites are no surprise, according to Dave Francis, health stocks analyst for J.C. Bradford & Company in Nashville. "We're really in the infancy of applying Internet technology to the health care and health care information markets," he says. "It's no secret that health care is probably the most screwed-up industry in the world, and a large part of that is because information flows between all participants—doctors, patients, insurers, what have you—are really in the dark ages relative to other vertical markets."

Early investors were excited about corporations that aimed to deliver general health information via the Web, but the focus is now shifting. Francis says sites like DrKoop.com, MediConsult, AmericaDoctor, and OnHealth Network quickly found that consumers were not willing to pay for health-related information. "I have a hard enough time paying a \$10 co-pay when I go to the doctor's office, so it's hard to expect consumers to pay for it if you can get it somewhere for free. From an investment perspective, the bloom has come off the rose for those companies." Instead, the health care market is now focusing on companies like Healtheon, Trizetto Group, Confer Software, WellMed, MedicaLogic, and others dealing with the more efficient use and flow of patient infor-

"There's a current of what's happening in society, with Internet and e-commerce—even people who are the greatest naysayers realize the tidal wave is coming and they've got to get on it.

They can't stop it and so they need to sit down and learn the basic skills that are necessary and once they start to do that, they'll really enjoy it and it will benefit patient care."

—Dr. Andrew Vernon
The Diagnostic Center, Chattanooga

mation. Of the nation's \$1.2trillion annual health care costs, estimates are that about \$350 billion is wasted on unnecessary clinical and administrative tasks. "More efficient application of simple patient information can solve a lot of that," says Francis. "To avoid duplication of tests for a patient that gets referred from one doctor to another, to avoid having an additional x-ray performed, all of these companies are trying to tackle different parts of the elephant in achieving this more efficient information flow."

Physician Profiles Abundant on the Web

Other companies and organizations use the Internet to fill another need: helping would-be patients find a reliable physician. An initial search turned up multiple sites offering physician listings and profiles; among the top ten were the AMA's Physician Select, offering information on "virtually every licensed physician in the United States"; Healthgrades.com which provides "profiles on hospitals, physicians, clinics and health plans with related information"; and Doctors On Call, "a directory of over 400,000 doctors and other medical professionals."

Several states offer profiles that detail a doctor's education, specialty, and even disciplinary action. Started last fall, Tennessee's mandatory profiles are only a mild concern for Webb in Sparta. "I understand the arguments for doing this; I've heard some of the very heart-wrenching stories about patients who went to physicians they never would have gone to otherwise. That's the case with anything on the Internet, whether it's business or medicine—it's not the information, it's how the information is to be utilized."

Privacy for Patients, Physicians

President Clinton has echoed the same concern. Last fall, he proposed federal regulations to keep electronic medical records out of the hands of employers and marketers, and urged Congress to do even more to protect Americans from an invasion of their medical privacy. U.S. lawmakers had failed to meet their own August 21 deadline to enact new protections. "The American people are concerned and rightfully so," said the President last October. "Americans should never have to worry that their employers are looking at the medicines they take, or the ailments they've had."

A few weeks earlier, computer giant Intel had announced

a new service to assign an electronic I.D. to doctors and patients, allowing them to transfer information via the Internet without fear of a security breach.

In Chattanooga, Vernon says he has no doubt that confidentiality can be maintained. "We need to make sure that only those who should have access do have access," he says. In Sparta, Webb says Clinton's proposals are a good idea, as long as they do nothing to impair his ability to care for his patients. Webb says he does not want to see a backlash from the "antitechnology crowd." "I'm just afraid these reservations might create impediments for me not to see the information I need. There really has to be a balance. I don't want an overreaction . . . but if insurance companies are buying and selling or cherry-picking people, that should be regulated and monitored."

The Future of Web Health Care

Apart from privacy concerns, Web technology offers great potential for the medical field in the future . . . as long as the industry continues to solve its own problems. A February report from the National Academy of Science's National Research Council recommends fast fixes for some major

obstacles, including the limited video capabilities of most computers and outdated public policy that keeps some areas of the medical world in technological darkness. The study concluded that since the cost-conscious health care industry is unlikely to fund Internet improvements that do not bring a profit, the federal government should chip in with research funds and lead the way to expand the capabilities and usefulness of Internet health programs.

"It's a very exciting time, as long as potential users of the technology and investors realize that the holy grail isn't just on the horizon," Francis allows. "There's a lot of work that needs to be done between now and then, but as that work is completed, it holds a greater promise for making the health care market a more efficient, friendlier place for everyone involved."

"We just have to develop the infrastructure," adds Vernon. "It's going to happen either way. When the wave comes, we'll have already established the processes. We're working on the bugs, and it'll be there. It's here to stay, and it will be an integral part of our future. Hopefully, it will benefit mankind and make our lives more comfortable, and then we all benefit."

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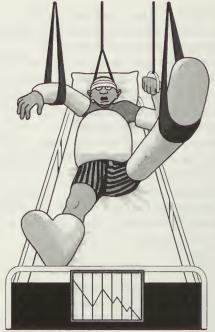


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Health Policy Report

Health Care on a Tightrope: Is There a Safety Net?

Part I: Uncompensated Care

David M. Mirvis, MD

Over 40 million people in the United States do not have health insurance and even more have insurance that does not meet their health care needs. These citizens do, however, require and receive considerable health care resources. Data suggest that the adult uninsured utilize approximately 60% as much outpatient and inpatient services as the insured.

The vast majority of both the uninsured and the underinsured poor cannot afford to pay for this health care out-of-pocket. But someone does pay. The health care delivery systems these people rely upon and the costs to these systems will be the subject of this and the next Health Policy Report. In this report, we will take a brief look at the costs of this uncompensated care, assess who does pay the bills, and take a peek into the future to forecast what may happen to this important source of health care financing. In the next report, we will examine the structure of the delivery system that is specifically intended to serve this growing group—the health care safety net.

What is Uncompensated Care and Who Receives It?

What do we mean by "uncompensated care." The term generally includes two elements that are generally combined and presented as one figure. The first component is true "charity care"—costs of care for patients without insurance or with inadequate insurance relative to their income, that is, care for which no insurance or other payment is expected. The second is "bad debt," that is, care usually assumed to be provided to the nonpoor who, for some reason, do not pay their bills. Of the total amount of uncompensated care provided by hospitals, approximately one-third to one-half represents charity care.³

This distinction between charity care and bad debt may not be accurate. A recent study of recipients of uncompensated care in Massachusetts suggests that both forms of uncompensated care are, in reality, generated by care provided to patients unable to pay. Weissman et al³ found that 84% of designated charity care was given to patients with incomes under the federal poverty level (approximately \$10,360 per year for a family of two and \$15,600 for a family of four), while 76% of bad debt for emergency care and 64% of bad debt for nonemergency care were for patients under the federal poverty level. Of those with incomes of under \$20,000, 68% report "not making it" or "just making it," so that the added burden of hospital or significant outpatient health care costs would be, for most, unmanageable. Thus, most bad debt is for patients who could not reasonably be expected to pay for care and should be included as charity care rather than as "free loading" by those able to pay.

Who Provides Uncompensated Care and How Much Does it Cost?

Uncompensated care is usually considered to be a hospital problem. In 1994, hospitals provided \$16.8 billion in uncompensated care.^{4,5} This represents approximately 6.1% of total operating expenditures.

These figures, however large, underestimate the true impact of the lack of insurance and poverty on hospital finances. From the hospital side, they do not include discounts for hospital care required by public payers. For example, hospitals in Tennessee reported receiving only 61% to 72% of their costs under TennCare.⁶ When these shortfalls are included, uncompensated care rises to almost 13% of overall hospital revenue.⁷ From the patient's side, the amount of uncompensated care substantially underestimates the impact of not having insurance and low income on health care; 33% of working-age persons with incomes under \$20,000 reported having medical conditions for which they did not seek care, and 31% did not fill a prescription because of the costs.¹ If they would have sought and received necessary care but could not pay, the level of uncompensated care would have been markedly higher.

The burden of uncompensated care is not evenly distributed across hospitals. Private hospitals provide most uncom-

From the Center for Health Services Research, University of Tennessee, Memphis. pensated care; in 1994, not-for-profit private hospitals provided 55.8% of all hospital-based uncompensated care and for-profit facilities contributed an additional 5.3%.⁴ Public facilities provided the remainder (38.9%). Thus, mainstream facilities—not public facilities commonly thought to represent the safety net—bear the majority of the load.

However, public facilities and major teaching hospitals carry a disproportionately large share of the obligation. Urban public hospitals incur 14.9% of overall hospital expenses but 35.2% of uncompensated expenses, that is, they assume 236% of their "fair share," with uncompensated care accounting for 15.4% of their total expenses. Major public teaching hospitals carry 290% of their "fair share"; uncompensated care accounts for 18.9% of overall expenses. And hospitals with high Medicaid volumes carry 145% of their "fair share." In contrast, for-profit and not-for-profit private hospitals each bear only 76% of their share.⁴

Although hospitals have been in the spotlight of most discussions, they provide less than half of total uncompensated care. It is, in reality, physicians who bear the majority of the burden. In 1994, physicians provided \$21.14 billion in uncompensated care, 26% more than the \$16.8 billion provided by hospitals. Perhaps more important than the actual amount is the rapid rise in the physician component; the 1994 level represents a 65% increase (after inflation) from the 1990 level of only \$12.76 billion. This rapid rise may reflect attempts by hospitals to reduce their costs by shifting care to ambulatory facilities as well as by increases in the number of uninsured, underinsured, and poor patients. Smaller amounts of uncompensated care (approximately \$1 billion per year) are also provided by community health centers.

Who Really Pays the Bills?

How do providers pay for this care? For hospitals, paying for uncompensated care is a balance between internal and external cost shifting. Hospitals have been required to provide uncompensated care by two mechanisms.³ First, those which received federal funds for capital improvement under the Hill Burton Act are required to provide a defined amount of uncompensated care for 20 years. Second, maintaining not-for-profit status requires hospitals to provide community benefit, of which uncompensated care is a major element.

The funds to meet these demands are derived from several sources. Direct funding may come from governmental programs. Public hospitals receive direct subsidies from state or local governments. Those with teaching programs receive indirect (as well as direct) medical education (IME) funding to cover the extra costs of educational activities; since these hospitals have an excess burden of uncompensated care, these funds do in reality support charity care. Finally, hospitals with a high volume of poor Medicare and Medicaid patients receive additional Medicare and, often Medicaid, payments

as disproportionate share funds (DSH). These federal funds are substantial; approximately 6% of all Medicare funding and 13% of all Medicaid funding to hospitals are for DSH payments.⁷ Additional monies to compensate for care may be derived from state uncompensated care pools⁸ in states with such programs or from private philanthropy.

A major source of funding for uncompensated care is cost shifting. This mechanism relies upon receiving reimbursement from paying patients (that is, their insurance companies) that exceeds the cost of their care. The excess payments are then used to subsidize the care of the uninsured, etc. As the level of uncompensated care rises, hospitals increase their charges (and presumably payments on behalf of insured patients) to cover the rise in charitable care. That this form of payment is increasing is indicated by the rise in the ratio of charges to costs from 112% in 1980 to over 124% in 1994.

Various states have attempted—with limited success—to reduce the burden of uncompensated care to hospitals. The most rational approach is to extend health insurance coverage to the uninsured. Expansion of Medicaid to cover more pregnant women and infants with family incomes under 133% of the federal poverty level reduced uncompensated care by 5.4%; for hospitals with a special commitment to maternity and infant care, uncompensated care fell by 28.5%. 10 This approach, while logical, has problems. Expansion efforts tend to be limited. TennCare expansion has, for example, left 6% to 14% of Tennesseans without insurance⁶ and recent expansion of employer-based insurance has been associated with a fall—not the expected rise—in the percent of employees enrolling in coverage plans.11 These programs, as noted above for TennCare, extract significant discounts so that "unreimbursed" care may fall less than does charity care; in Tennessee, uncompensated care after five years of TennCare (\$354.2 million in 1997) is approximately the same as before TennCare. Finally, if insurance is provided by government programs such as Medicaid or its replacement managed care alternatives, the costs are transferred from providers to the government and thereby to taxpayers. This results in a leveling of the playing field so that those that provide previously uncompensated care are reimbursed, but whether or not there is a net reduction in total costs is uncertain.

Other state approaches include establishing uncompensated care pools that reimburse hospitals for care to the uninsured, restructuring the delivery system to emphasize outpatient care, and establishing set rates for care from a centralized payment source that assures payments, at some rate, for all care. 12

What Does the Future Bring?

Several trends suggest that providing uncompensated care will become more difficult in the future even as the need continues to grow. The first is the rapid growth of managed

care plans. These plans put greater price discipline on the market through negotiated discounts that reduce operating margins and reduce the ability of hospitals (and other providers) to cost shift. Uncompensated care by both hospitals and physicians is indeed lower in regions with high penetration rates of managed care.^{13,14}

Second, public funding of otherwise uncompensated care is diminishing, or at a minimum not keeping up with growth. Direct public subsidies, and DSH and IME funding, are all shrinking. Medicaid and possibly Medicare payment rates may also fall as states and the federal government struggle to maintain balanced budgets. The number of hospitals with remaining Hill-Burton obligations is declining (from approximately 4,000 in 1980 to under 500 in 2000), while the number converting to for-profit status without statutory obligations for community benefit (and with no guarantee that the taxes they pay will go to health care) rises. ¹⁵ All of this occurs at a time when the number of uninsured is rising.

Evidence from the recent past has suggested these forces have already affected the level and sources of uncompensated care. The amount of uncompensated hospital care provided to the uninsured has fallen from \$482 per person per year in 1987 to \$431 per person per year in 1995, and the amount of uncompensated care provided per dollar of compensated care has fallen from \$0.42 in 1984 to \$0.36 in 1994, a 14% fall.⁴

What do these trends suggest for the future? The ability of all hospitals and providers to provide uncompensated care will become progressively more constrained as the forces described above continue to develop and interact. Mainstream providers who provide most of the uncompensated care—private hospitals and individual physicians whose major commitment is to the population as a whole rather than to the poor or uninsured, and who expect to generate adequate incomes and revenues, if not profits—have the greatest ability to control or reduce the care they provide in response to fiscal pressures.

This, in turn, results in a progressive shift of responsibility toward public safety net programs. This is already occurring; between 1990 and 1994, the percent of all hospitals with uncompensated care costs exceeding 10% of total costs that were public increased while the percent that were private fell.⁵

The consequences of a continued fall in the provision of uncompensated care are clear. Although uncompensated care is not as efficacious as insured care, ¹⁶ it is all that a growing proportion of people in our nation have. The shift away from mainstream providers will also put greater stress on safety net hospitals. This pressure, especially when combined with other detrimental influences they face, has placed their survival at risk. These forces and their consequences will be the topic of the next Health Policy Report.

References

- 1. Budetti J, Duchon L, Schoen C, et al: Can't Afford to Get Sick: A Reality for Millions of Working Americans. New York, The Commonwealth Fund, 1999.
- Long SH, Marquis MS: The uninsured 'access gap' and the cost of universal coverage. Health Aff 13(2):211-220, 1994
- Weissman JS, Dryfoos P, London K: Income levels of bad-debt and free-care patients in Massachusetts hospitals. Health Aff 18(4):156-166, 1999.
 Mann JM, Melnick GA, Bamezi A, et al: A profile of uncompensated hospital care, 1983-
- 1995. Health Aff 16(4):223-232, 1997.
 5. Cunningham PJ, Tu HT⁻ A changing picture of uncompensated care. Health Aff 16(4):187-
- 5. Cunningnam PJ, 10 H1. A changing picture of uncompensated care. Heatin Alf 10(4):187-197.
 6. Mirvis DM, Bailey JE, Chang CF: TennCare—five years of Medicaid managed care for
- Tennessee. Submitted to JAMA.
 7. Weissman JS: Uncompensated hospital care. Will it be there if we need it? JAMA 276:823-
- 828, 1996.8 Spencer CS: Do uncompensated care pools change the distribution of hospital care to the
- uninsured? J Health Polit Pol Law 23.53-73, 1998

 9. Morrisey MA: Cost Shifting in Health Care. Washington, DC, American Enterprise Insti-
- tute, 1994.

 10. Dubay LC, Norton SA, Moon M. Medicaid expansions for pregnant women and infants.
- easing hospitals' uncompensated care burdens? *Inquiry* 32:332-344, 1995.

 11. Cooper PF, Schone BS. More offers, fewer takers for employment-based health insurance: 1987 and 1996. *Health Aff* 16(6):142-149, 1997.
- Thorpe KE: Does all-payer rate setting work? The case of the New York Prospective Hospital Reimbursement Methodology. J Health Polit Pol Law 12:391-408, 1987.
- Cunningham PJ, Grossman JM, St. Peter RF, et al: Managed care and physicians' provision of charity care. JAMA 281:1087-1092, 1999.
- 14 Mann J, Melnick G, Bamezai A, et al: Uncompensated care: hospital's responses to fiscalpressure. Health Aff 14(1):263-270, 1995.
 15 Needleman J. Lamphere J. Chollet D. Uncompensated care and hospital conversions in
- 15. Needleman J, Lamphere J, Chollet D. Uncompensated care and hospital conversions in Florida. Health Aff 18(4):125-133, 1999.
- Blendon RJ, Aiken LH, Freeman HE, et al: Uncompensated care by hospitals or public insurance for the poor. Does it make a difference? N Engl J Med 314:1160-1163, 1986.

Loss Prevention Case of the Month

History-Examination-Suspicion

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 24-year-old obese man reported to a minor medical center after the sudden onset of pain in the right testicle for one hour. The patient's temperature was 99°F, pulse 86/min, and his blood pressure was normal. He weighed 325 lb and was 6' 1" tall. Documentation of the physical examination was confined to the genitalia, noting only "Swollen right testicle/ epididymis with tenderness locally. Inguinal canal OK." The diagnosis was recorded as epididymitis, right. The patient was given an antibiotic by injection and a prescription for the same to be taken by mouth. The instructions given by the physician, though not documented, were said by the patient to be, "Report to the hospital emergency department if pain does not subside."

Four hours later, six hours after onset of pain, the patient reported to the medical center hospital emergency de-

partment with the same severe pain in the right testicle. The examination on this occasion revealed a swollen, tender right testicle and epididymis. The remainder of a complete physical examination was within normal limits except for obesity. The history revealed therapy with Dilantin for a seizure disorder. He had not had a seizure for a year, though he took the antiseizure medication irregularly. Urinalysis revealed some protein, and his WBC count was 12,000/cu mm with 89% segmented neutrophils. The admission diagnosis was acute torsion, right testicle.

Operation disclosed a dark blue right testicle, with the cord showing a 540 degree torsion. The torsion was reversed, and exploration of the left testicle showed it to be normal;

sutures were placed to fix it in the normal position. The infarcted right testicle was removed, and pathology reported that the testicle was indeed dead. The postoperative course was normal, and recovery was complete.

A lawsuit was filed by the patient charging the physician in the minor medical facility with negligence in failure to diagnose the torsion of the testicle resulting in the loss of the testicle and the possibility of infertility. Expert review indicated that the physician did not provide treatment to his patient that would meet the prevailing standard of care.

Loss Prevention Comments

The marked obesity of this patient possibly complicated the physical examination and the diagnosis, but the history in this case was typical of testicular torsion. The onset was sudden, without any predisposing factors. If seen in the first hour the finding is usually tenderness in the testicle with some swelling. The tenderness is significant, and sometimes the testicle slightly to moderately swollen. The testicle may lie higher than normal in the scrotum, and careful palpation may occasionally reveal the torsion. The urinalysis may be totally negative. Survival of the testicle is extremely rare after four hours of torsion, so prompt diagnosis and treatment is imperative.

The diagnosis in this case was acute epididymitis, which is the usual diagnosis confused with torsion. The onset is usually not sudden, with symptoms beginning a few days before the patient goes to the physician. Examination more often reveals a tender, swollen testicle that may show some redness, induration, and warmth of the skin. The laboratory should show more evidence of infection, with more fever and elevation of the WBC count.

The use of imaging technology has been studied, and as yet the specificity of diagnosing acute torsion of the testicle is not encouraging. One fact that may increase the value of a case like this is that about 25% of these patients are infertile afterwards, likely due to some ischemia of the other testicle triggered by the insult of torsion.

Because of the opinion of the specialists who studied this case, and the unanimous opinion that the physician was outside the standard of care, a modest settlement was negotiated. The hallmarks of this diagnosis appear to be a *good* history, a *good* examination, and a *high* index of suspicion for the condition. None of these seemed to be present here, or if they were, they did not appear in the medical record.

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References: 1. Dykewicz MS, Finemon S. Diagnosis and monagement of rhinitis: complete guidelines of the Joint Task Force on Practice Porameters in Allergy, Asthma and Immunalagy. Ann Allergy Asthma Immunol. 1998;81:478-518. 2. Source™ Prescription Audit (SPA), US Tatal Prescriptions, 19 months ending 9/30/99. Scott-Levin. 3. Worldwide rhinitis product analysis, December 1998. Global Nosol MAT. IMS Global Services. 4. Source™ Prescription Audit (SPA), Custom Allergic Rhinitis Morket, MAT September 1999. Scott-Levin.

Please see Brief Summary of Prescribing Information on odjacent page.

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CONTRAINDICATIONS: FLONASE Nasal Spray is contraindicated in patients with a hypersensitivity to any of its ingredients

WARNINGS: The replacement of a systemic corticosteroid with a topical corticosteroid can be accompanied by signs of adrenal insufficiency, and in addition some patients may experience symptoms of withdrawal, e.g., joint and/or muscular pain, lassitude, and depression. Patients previously treated for prolonged periods with systemic corticosteroids and transferred to topical corticosteroids should be carefully monitored for acute adrenal insufficiency in response to stress. In those patients who have asthma or other clinical conditions requiring long-term systemic corticosteroid treatment, too rapid a decrease in systemic corticosteroids may cause a severe exacerbation of their symptoms.

The concomitant use of intranasal corticosteroids with other Inhaled corticosteroids could increase the risk of signs or symptoms of hypercorticism and/or suppression of the hypothalamic-pituitaryadrenal (HPA) axis.

Patients who are on immunosuppressant drugs are more susceptible to infections than healthy individuals. Chickenpox and measles, for example, can have a more serious or even fatal course in patients on immunosuppressant doses of corticosteroids. In such patients who have not had these diseases, particular care should be taken to avoid exposure. How the dose, route, and duration of corticosteroid administration affects the risk of developing a disseminated infection is not known. The contribution of the underlying disease and/or prior corticosteroid treatment to the risk is also not known. If exposed to chickenpox, prophylaxis with varicella zoster immune globulin (VZIG) may be indicated. If exposed to measles, prophylaxis with pooled intramuscular immunoglobulin (IG) may be indicated. (See the respective package inserts for complete VZIG and IG prescribing information.) If chickenpox develops, treatment with antiviral agents may be considered.

PRECAUTIONS:

General: Rarely, immediate hypersensitivity reactions or contact dermatitis may occur after the administration of FLONASE Nasal Spray. Rare instances of wheezing, nasal septum perforation, cataracts, glaucoma, and increased intraocular pressure have been reported following the intranasal application of corticosteroids, including fluticasone propionate.

Use of excessive doses of corticosteroids may lead to signs or symptoms of hypercorticism, suppression of HPA function, and/or reduction of growth velocity in children or teenagers. Physicians should closely follow the growth of children and adolescents taking corticosteroids, by any route, and weigh the benefits of corticosteroid therapy against the possibility of growth suppression if growth appears slowed.

Although systemic effects have been minimal with recommended doses of FLONASE Nasal Spray, potential risk increases with larger doses. Therefore, larger than recommended doses of FLONASE Nasal Spray should be avoided

When used at higher than recommended doses, or in rare individuals at recommended doses, systemic corticosteroid effects such as hypercorticism and adrenal suppression may appear. If such changes occur, the dosage of FLONASE Nasal Spray should be discontinued slowly consistent with accepted procedures for discontinuing oral corticosteroid therapy.

In clinical studies with fluticasone propionate administered intranasally, the development of localized infections of the nose and pharynx with Candida albicans has occurred only rarely. When such an infection develops, it may require treatment with appropriate local therapy and discontinuation of treatment with FLONASE Nasal Spray. Patients using FLONASE Nasal Spray over several months or longer should be examined periodically for evidence of Candida infection or other signs of adverse effects on the nasal mucosa

FLONASE Nasal Spray should be used with caution, if at all, in patients with active or quiescent tuberculous infection; untreated local or systemic fungal or bacterial, or systemic viral infections or parasitic infection; or ocular herpes simplex.

Because of the inhibitory effect of corticosteroids on wound healing, patients who have experienced recent nasal septal ulcers, nasal surgery, or nasal trauma should not use a nasal corticosteroid until healing has occurred.

Information for Patients: Patients being treated with FLONASE Nasal Spray should receive the following information and instructions. This information is intended to aid them in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects

Patients should be warned to avoid exposure to chickenpox or measles and, if exposed, to consult their physician without delay.

Patients should use FLONASE Nasal Spray at regular intervals as directed since its effectiveness depends on its regular use. A decrease in nasal symptoms may occur as soon as 12 hours after starting therapy with FLONASE Nasal Spray. Results in several clinical trials indicate statistically significant improvement within the first day or two of treatment; however, the full benefit of FLONASE Nasal Spray may not be achieved until treatment has been administered for several days. The patient should not increase the prescribed dosage but should contact the physician if symptoms do not improve or the condition worsens. For the proper use of the nasal spray and to

attain maximum improvement, the patient should read and follow carefully the patient's instructions accompanying the product.

FLONASE® (fluticasone propionate) Nasal Spray, 50 mcg

Drug Interactions: In a placebo-controlled, crossover study in eight healthy volunteers, coadministration of a single dose of orally inhaled fluticasone propionate (1000 mcg, 5 times the maximum daily intranasal dose) with multiple doses of ketoconazole (200 mg) to steady state resulted in increased mean fluticasone propionate concentrations, a reduction in plasma cortisol AUC, and no effect on urinary excretion of cortisol. This interaction may be due to an inhibition of the cytochrome P450 3A4 isoenzyme system by ketoconazole, which is also the route of metabolism of fluticasone propionate. No drug interaction studies have been conducted with FLONASE Nasal Spray; however, care should be exercised when fluticasone propionate is coadministered with long-term ketoconazole and other known cytochrome P450 3A4 inhibitors

Carcinogenesis, Mutagenesis, Impairment of Fertility: Fluticasone propionate demonstrated no tumorigenic potential in mice at oral doses up to 1000 mcg/kg (approximately 20 times the maximum recommended daily intranasal dose in adults and approximately 10 times the maximum recommended daily intranasal dose in children on a mcg/m² basis) for 78 weeks or in rats at inhalation doses up to 57 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults and approximately equivalent to the maximum recommended daily intranasal dose in children on a mcg/m2 basis) for

Fluticasone propionate did not induce gene mutation in prokaryotic or eukaryotic cells in vitro. No significant clastogenic effect was seen in cultured human peripheral lymphocytes in vitro or in the mouse micronucleus test when administered at high doses by the oral or subcutaneous routes. Furthermore, the compound did not delay erythroblast division in bone marrow

No evidence of impairment of fertility was observed in reproductive studies conducted in male and female rats at subcutaneous doses up to 50 mcg/kg (approximately 2 times the maximum recommended daily intranasal dose in adults on a mcg/m 2 basis). Prostate weight was significantly reduced at a subcutaneous dose of 50 mcg/kg.

Pregnancy: Teratogenic Effects: Pregnancy Category C Subcutaneous studies in the mouse and rat at 45 and 100 mcg/kg, respectively (approximately equivalent to and 4 times the maximum recommended daily intranasal dose in adults on a mcg/m2 basis, respectively) revealed fetal toxicity characteristic of potent corticosteroid compounds, including embryonic growth retardation, omphalocele, cleft palate, and retarded cranial ossification.

In the rabbit, fetal weight reduction and cleft palate were observed at a subcutaneous dose of 4 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

However, no teratogenic effects were reported at oral doses up to 300 mcg/kg (approximately 25 times the maximum recommended daily intranasal dose in adults on a mcg/m² basis) of fluticasone propionate to the rabbit. No fluticasone propionate was detected in the plasma in this study, consistent with the established low bioavailability following oral administration (see CLINICAL PHARMACOLOGY section of the full prescribing information).

Fluticasone propionate crossed the placenta following oral administration of 100 mcg/kg to rats or 300 mcg/kg to rabbits (approximately 4 and 25 times, respectively, the maximum recommended daily intranasal dose in adults on a mcg/m² basis).

There are no adequate and well-controlled studies in pregnant women. Fluticasone propionate should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus

Experience with oral corticosteroids since their introduction in pharmacologic, as opposed to physiologic, doses suggests that rodents are more prone to teratogenic effects from corticosteroids than humans. In addition, because there is a natural increase in corticosteroid production during pregnancy, most women will require a lower exogenous corticosteroid dose and many will not need corticosteroid treatment during pregnancy

Nursing Mothers: It is not known whether fluticasone propionate is excreted in human breast milk. When tritiated fluticasone propionate was administered to rats at a subcutaneous dose of 10 mcg/kg (less than the maximum recommended daily intranasal dose in adults on a mcg/m2 basis), radioactivity was excreted in the milk. Because other corticosteroids are excreted in human milk, caution should be exercised when FLONASE Nasal Spray is administered to a nursing woman.

Pediatric Use: Five hundred (500) patients aged 4 to 11 years of age and 440 patients aged 12 to 17 years were studied in US clinical trials with fluticasone propionate nasal spray. The safety and effectiveness of FLONASE Nasal Spray in children below 4 years of age have not been established.

Oral and, to a less clear extent, inhaled and intranasal corticosteroids have been shown to have the potential to cause a reduction in growth velocity in children and adolescents with extended use. If a child or adolescent on any corticosteroid appears to have growth suppression, the possibility that they are particularly sensitive to this effect of corticosteroids should be considered (see PRECAUTIONS)

Geriatric Use: A limited number of patients above 60 years of age (n = 275) have been treated with FLONASE Nasal Spray in US and non-US clinical trials. While the number of patients is too small to permit separate analysis of efficacy and safety, the adverse reactions reported in this population were similar to those reported by younger patients.

ADVERSE REACTIONS: In controlled US studies, more than 3300 patients with seasonal allergic, perennial allergic, or perennial nonallergic rhinitis received treatment with intranasal fluticasone

propionate. In general, adverse reactions in clinical studies have been primarily associated with irritation of the nasal mucous membranes and the adverse reactions were reported with approximately the same frequency by patients treated with the vehicle itself. The complaints did not usually interfere with treatment. Less than 2% of patients in clinical trials discontinued because of adverse events; this rate was similar for vehicle placebo and active comparators.

Systemic corticosteroid side effects were not reported during controlled clinical studies up to 6 months' duration with FLONASE Nasal Spray, If recommended doses are exceeded, however, or if individuals are particularly sensitive, or taking FLONASE Nasal Spray in conjunction with administration of other corticosteroids, symptoms of hypercorticism, e.g., Cushing's syndrome, could occur.

The following incidence of common adverse reactions (>3%, where incidence in fluticasone propionate-treated subjects exceeded placebo) is based upon seven controlled clinical trials in which 536 patients (57 girls and 108 boys aged 4 to 11 years, 137 female and 234 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 2 to 4 weeks and two controlled clinical trials in which 246 patients (119 female and 127 male adolescents and adults) were treated with FLONASE Nasal Spray 200 mcg once daily over 6 months. Also included in the table are adverse events from two studies in which 167 children (45 girls and 122 boys aged 4 to 11 years) were treated with FLONASE Nasal Spray 100 mcg once daily for 2 to 4 weeks.

Overall Adverse Experiences With >3% Incidence on Fluticasone Propionate in Controlled Clinical Trials With FLONASE Nasal Spray in Patients ≥4 Years With Seasonal or Perennial Allergic Rhinitis

icle Placebo n = 758) %	FLONASE 100 mcg Once Daily (n = 167) %	FLONASE 200 mcg Once Daily (n = 782)
14.6	6.6	16.1
7.2	6.0	7.8
5.4	6.0	6.9
2.6	2.4	3.2
2.0	4.8	2.6
2.9	7.2	3.3
2.8	3.6	3.8
	14.6 7.2 5.4 2.6 2.0 2.9	icle Placebo

Other adverse events that occurred in ≤3% but ≥1% of patients and that were more common with fluticasone propionate (with uncertain relationship to treatment) included: blood in nasal mucus, runny nose, abdominal pain, diarrhea, fever, flu-like symptoms, aches and pains, dizziness, bronchitis.

Observed During Clinical Practice: In addition to adverse events reported from clinical trials, the following events have been identified during postapproval use of fluticasone propionate in clinical practice. Because they are reported voluntarily from a population of unknown size, estimates of frequency cannot be made. These events have been chosen for inclusion due to either their seriousness, frequency of reporting, causal connection to fluticasone propionate, occurrence during clinical trials, or a combination of these factors.

General: Hypersensitivity reactions, including angioedema, skin rash, edema of the face and tongue, pruritus, urticaria, bronchospasm wheezing, dyspnea, and anaphylaxis/anaphylactoid reactions, which in rare instances were severe.

Ear, Nose, and Throat: Alteration or loss of sense of taste and/or smell and, rarely, nasal septal perforation, nasal ulcer, sore throat, throat irritation and dryness, cough, hoarseness, and voice changes.

Eye: Dryness and irritation, conjunctivitis, blurred vision, glaucoma, increased intraocular pressure, and cataracts.

OVERDOSAGE: Chronic overdosage with FLONASE Nasal Spray may result in signs/symptoms of hypercorticism (see PRECAUTIONS). Intranasal administration of 2 mg (10 times the recommended dose) of fluticasone propionate twice daily for 7 days to healthy human volunteers was well tolerated. Single oral doses up to 16 mg have been studied in human volunteers with no acute toxic effects reported. Repeat oral doses up to 80 mg daily for 10 days in volunteers and repeat oral doses up to 10 mg daily for 14 days in patients were well tolerated. Adverse reactions were of mild or moderate severity, and incidences were similar in active and placebo treatment groups. Acute overdosage with this dosage form is unlikely since one bottle of FLONASE Nasal Spray contains approximately 8 mg of fluticasone propionate

The oral and subcutaneous median lethal doses in mice and rats were >1000 mg/kg (>20000 and >41000 times, respectively, the maximum recommended daily intranasal dose in adults and >10000 and >20000 times, respectively, the maximum recommended daily intranasal dose in children on a mg/m2 basis).

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Original Contribution

Nontreatment Variables Affecting Returnto-Work in Tennessee-Based Employees With Complaints of Low Back Pain

Scott Gilbert, PT; Adam Kerley, PT; Ann Lowdermilk, MS, PT; Peter C. Panus, PhD, PT

Introduction

Low back pain is a common reason to seek medical assistance and rehabilitation. with associated care costs in the billions of dollars and continuing to escalate. 1,2 Both traditional and alternative medical practices have been utilized to rehabilitate patients with low back pain.3,4 The relative advantages of each practice regimen over the others, however, has not been clearly substantiated. Thus, nontreatment related variables might influence the ultimate outcome in the rehabilitation of patients with the complaint of low back pain.

The reported percentage of patients with complaints of low back pain who receive physical therapy ranges from 13% to 62%, depending upon the investigation.⁵⁻⁷ Improvement of patients with complaints of low back pain following physical therapy

ABSTRACT

Disability and health care-related costs continue to rise as a result of work-related low back injury. Our investigation examined treatment-independent variables that influenced return-to-work outeome in a sample of workers employed in Northeast Tennessee. Methods: The review collected 11 variables from two different outpatient physical therapy clinies utilizing a balanced quota sampling design. The patients were enrolled if the documented complaint was low back pain and was an employment-related injury. The patients were grouped according to whether or not they returned to full-time pre-injury work. Twenty-five patients were enrolled in the positive outcome group, those who returned to fulltime pre-injury work. Twenty-two patients who did not achieve this goal were enrolled in a separate group. Results: Return-towork for these patients was not dependent upon age, gender, insurer, number of physical therapy treatments attended, or previously reported low back injury. Those who returned to work had (1) a higher percentage of patients working full-time at their preinjury position during the rchabilitation process (28% vs. 0%); (2) a higher compliance with the treatment schedule (97% vs. 93%); (3) a lower cancellation rate (0.5 vs. 2.4); (4) a shorter interval in days between reporting the injury and initiation of physical therapy rehabilitation (27 vs. 58); and (5) a lower percentage of previous surgeries resulting from low back injuries (12% vs. 36%), than those who did not. A relationship was also demonstrated between previous surgery and the interval prior to beginning treatments ($P \le 0.0001$). However, no relationship was observed between previous surgery and compliance, or between the interval prior to beginning treatments and compliance. Discussion: These results document two variables representing independent factors affecting return-to-work in this population. The first was previous injury influencing the current injury, as documented by both previous surgery and the interval between the current injury and beginning of treatments. The second was compliance with the treatment schedule for the current injury. The psychosoeioeconomic aspects of these results are discussed.

range from 45% to 100%.8-10 The broad range of success with physical therapy was dependent in part upon several nontreatment variables. The poorest improvement occurred in patients receiving Workman's Compensation and demonstrating disc dysfunction.10 The greatest improvement occurred in patients receiving no compensation as a result of their injury.9 This level of rehabilitation success is significant, especially considering the evidence that physical therapy appears to be utilized in the treatment of patients with a greater severity of low back pain.5

Positive outcome from rehabilitation of patients with low back pain is not homogenous, and specific subpopulations have been identified.² As previously stated, nontreatment variables may in part be responsible for the wide spectrum of outcomes,

and the patient subpopulations. One such variable is compensation related to the low back injury. Patients receiving compensation as a result of work-related low back injuries and pain demonstrate different demographics and rehabilitation outcomes than those receiving no compensation. 5,9,11,12 Several investigations compared patients with low back pain who were receiving Workman's Compensation with those who were not receiving compensation. 5,9 These comparisons

From the Department of Physical Therapy, College of Public and Allied Health, East Tennessee State University, Johnson City (Dr. Panus). At the time of the investigation, Scott Gilbert, PT and Adam Kerley, PT were students in the physical therapy department. Ann Lowdermilk, MS, PT, practices in Johnson City.

Reprint requests to Department of Physical Therapy, College of Public and Allied Health, East Tennessee State University, P.O. Box 70624, Johnson City, TN 37614 (Dr. Panus).

demonstrated that more of the compensated patients utilized physical therapy services,⁵ there was a longer interval between reporting the injury and initiating physical therapy, and they required more therapy treatment sessions to achieve rehabilitation.⁹ Several factors not related to attendance were also documented: fewer Workman's Compensation patients worked during the rehabilitation process, and more of them had surgery.⁹ Prior surgical intervention for low back pain has been documented to negatively affect rehabilitation for current complaints of low back pain.¹³

Other nontreatment variables also influence rehabilitation of Workman's Compensation patients with low back pain, though these variables for compensated and noncompensated patients have not been compared. Patients with 80% or better compliance with the physical therapy treatment schedule improved with rehabilitation, when compared to patients who were less compliant. ¹⁴ Early rehabilitation intervention also increased the success of returning patients to employment. ^{2,6} These results have led to the perception that early rehabilitation of employment-related back injury should lead to a higher return-to-work success rate.

Our previous research focused on nontreatment variables effecting positive outcome at discharge in a Tennessee-based sample of patients with low back pain who were undergoing rehabilitation in an outpatient physical therapy clinic.¹⁵ The sample included the entire spectrum of patients treated at the clinic, and the optimal outcome of the rehabilitation was discharge to self-care at home. As documented by other investigators¹⁴ and in our previous research,¹⁵ patient compliance with the physical therapy treatment schedule was a key variable affecting perception of improvement by the patient and the treating physical therapist, and disposition at discharge. Our previous research was unable to document a poorer outcome in patients who were receiving Workman's Compensation than in those compensated by other third party payers, though other investigations have shown that patients with

TABLE 1

DEMOGRAPHICS OF PATIENTS WHO DID RETURN TO WORK AND THOSE WHO DID NOT

	Return-To-Work	Did Not Return	
No	25	22	
Age	41 ± 2	41 ± 2	
Female Gender	32%	36%	
Private	32%	36%	

The two groups consist of those patients who following physical therapy discharge returned to full-time pre-injury work (Return-To-Work), and patients who did not achieve this therapy goal (Did Not Return). The percentage of patients on private insurance compared to the total number of patients with Workman's Compensation plus private insurance is also represented (Private). None of the above demographic statistics between the two groups were significantly different when determined by Chi-squared (Female Gender and Private), or t-test (Age).

low back pain who are receiving compensation show unique nontreatment variables that separate them from the general population of patients with low back pain. 5,9,12 Therefore, we examined the return-to-work frequency following physical therapy in a sample of employees from Northeast Tennessee who had work-related low back pain. As returning patients to full-time pre-injury work is the optimal goal of any rehabilitation, we used it as the determinant for a positive outcome. We hypothesized that the previously discussed nontreatment variables would assist in this determination, and used such predictor variables as demographics, treatment attendance parameters, and previously reported low back injury and/or back surgery.

Methods and Materials

Subjects and Experimental Design. The protocol was reviewed a priori, and approved by the East Tennessee State University human institutional review board. All patient information was treated confidentially. Records were reviewed during 1998. To minimize the potential for clinic specific bias, patient records were reviewed from two regional outpatient physical therapy clinics. Patients with the diagnosis of low back dysfunction were assigned to one of two groups based on whether or not the patient returned to pre-injury full-time work immediately following discharge. A balanced quota sampling design was utilized, generating approximately equal numbers of patient records obtained from each clinic and for each group. Chart reviewers were blinded to the identity of the treating physical therapist. Twenty-five patients were enrolled in the return to pre-injury full-time work group (Return-To-Work), with 13 patients from clinic A and 12 patients from clinic B. Twenty-two patients were enrolled in a separate group who did not return to pre-injury full-time work (Did Not Return), with 12 patients from clinic A and 10 patients from clinic B.

Data Collection. Prior to a review of the patient records the following nontreatment-related independent predictor variables were selected for data analysis. The demographic information included age, gender, and third party payer. Patients were placed into one of two categories regarding the third party payer based on whether Workman's Compensation or private insurance covered the patient. Attendancerelated variables included: (1) the number of treatment sessions attended; (2) the number of treatment sessions canceled; (3) the interval of days between the reporting of the injury and beginning physical therapy treatment; and (4) the compliance index. The index was calculated by dividing the number of treatment sessions that were attended by the total number of treatments attended plus the number canceled. Previously reported back injury and/or back surgery were also recorded. Finally, the work status of the patients during the physical therapy treatments was documented. Patients who

TABLE 2
TREATMENT ATTENDANCE VARIABLES EFFECT ON RETURN-TO-WORK

	Return-To-Work	Did Not Return	P
Tx Attended	12 ± 2	17 ± 3	N.S.
Tx Canceled	0.5 ± 0.3	2.4 ± 0.9	0.04
Tx Compliance	97 ± 2%	93 ± 3%	0.08
Days Interval to 1	$\Gamma x \qquad 27 \pm 6$	58 ± 12	0.02

The variables "Return-To-Work" and "Did Not Return" are as defined in Table 1. Comparisons were done for the number of treatments (Tx) attended, canceled, the compliance of the patients to show up when scheduled, and the interval in days between recording of the injury and beginning physical therapy rehabilitation. Statistical comparisons were determined by t-test (P) and the level of significance indicated, or stated as not significantly different (N.S.). For the independent variable "Days Interval to Tx" three outliers were removed from the "Return-To-Work" group and two outliers were removed from the "Did Not Return" group.

during physical therapy treatments were continuing to work at their pre-injury full-time positions were placed in one group, and the other category was comprised of individuals who were on light duty, alternate schedule, or not working in any capacity.

Data Analysis. For the independent variable representing the number of days between the reporting of the injury and the beginning of the physical therapy treatments, outliers were removed from the statistic according to Davies and Goldsmith. 16 Categorical variables were summarized by frequency counts and percentages, while continuous variables were summarized by the mean and the standard error of the mean. Single predictors were assessed with the 2×2 chi square procedure for binary outcomes or by Student's t-test for comparing means of continuous outcome measurements. Association between two continuous variables was determined by Pearson product moment coefficient of correlation. All inferential statistics were conducted according to Portney and Watkins¹⁷ with SAS-PC software (SAS Institute Inc, Cary, NC) on a Pentium Millennia Transport (Micron Electronics, Nampa, ID). A probability level of 0.05 or less was used to indicate statistical significance.

Results

The demographic composition for the group of patients who returned to full-time pre-injury work (Return-To-Work), and those who did not (Did Not Return) was similar (Table1). No statistical differences between the two groups were observed for age, percentage of the sample which was female (Female Gender), or the percentage of patients covered by Workman's Compensation as compared to private third party insurer (Private). Thus, the demographic variables examined provided no potential for determining whether the patient would return to work following physical therapy discharge.

Several variables independent of the physical therapy treatment but associated with patient attendance were also exam-

ined (Table 2). The total number of treatments attended for the two groups were not different (Tx Attended). The patients who failed to return to work, however, demonstrated a higher number of cancellations (Tx Canceled). As a result of the greater number of cancellations, the patients who failed to return to work also demonstrated marginally lower compliance with the physical therapy treatment schedule (Tx Compliance). The time interval between the reporting of the injury and the initiation of the physical therapy was also examined (Days Interval to Tx). This interval was twice as long for patients who did not return to work.

Previously reported low back injury and/or back surgery, and the capacity of the patient to maintain pre-injury full-time work (Full-Time Work) during physical therapy were also examined (Table 3). No frequency differences in return-to-work were observed between the two groups for previously reported low back injuries (Previous Injury). The patients who did not return to work, however, demonstrated a higher frequency of reported previous back surgery (Previous Surgery). Additionally, 28% of the patients who returned to work following discharge maintained their full-time preinjury work status during physical therapy. This contrasts with the patients in the group who did not return to work following discharge from physical therapy, none of whom maintained their full-time pre-injury work status during physical therapy.

Several independent nontreatment variables that influenced return-to-work were compliance with physical therapy treatment schedule, the interval between reporting the injury and beginning physical therapy, and previous back surgery. These predictor variables were examined in greater detail. Previous surgery resulting from an earlier low back injury might suggest that the current injury is more severe. A more severe current injury in these patients would account for the increased number of days between reporting the injury and beginning physical therapy, and the lower compliance with physical therapy treatment schedule. The patient sample was repartitioned based on whether the patients had previous back

TABLE 3

NON-ATTENDANCE VARIABLES EFFECT ON RETURN-TO-WORK

Return-To-Work	Did Not Return	Chi Square
56%	46%	N.S.
12%	36%	0.05
28%	0%	0.01
	56% 12%	56% 46% 12% 36%

The variables "Return-To-Work" and "Did Not Return" are as defined in Table 1. Comparison of the non-attendance variables included previously recorded low back injury and/or surgery, and whether the patients worked full-time over the course of the physical therapy rehabilitation. Statistical analyses were determined by chi square and the level of significance indicated, or stated as not significantly different (N.S.).

TABLE 4

COMPARISON OF PREVIOUS SURGERY ON INTERVAL TO TREATMENT AND COMPLIANCE

	No Surgery	No	Surgery	No	Р
Days Interval to Tx	29 ± 5	32	81 ± 20	10	0.0001
Compliance	95 ± 11	36	95 ± 9	11	N.S.

Patients were partitioned according to whether they had documented previous surgery related to low back injury (Surgery), or no surgery related to such an injury (No Surgery). Both "Days Interval to Tx" and "Compliance" were as previously described in Table 2. For "Days Interval to Tx" one outlier was removed from the patient group who had previous surgery, and four outliers were removed from the patient group who had no previous surgery. Statistical comparisons were determined by t-test (P) and the level of significance indicated, or stated as not significantly different (N.S.).

surgery (Table 4). Patients who had previous surgery demonstrated a longer interval between reporting the current low back injury and beginning physical therapy (Days Interval to Tx). There was no difference in the compliance (Compliance) between patients who had previous back surgery and those who did not. Multiple psychosocial factors are involved with return-to-work following job-related injuries. Patients with a prolonged interval between reporting the injury and beginning rehabilitation may also demonstrate poor compliance with the treatment schedule that assists in their return-to-work. Correlation analysis between the variables of "Days Interval to Tx" and "Compliance" showed no significant correlation (N = 42, R = 0.06), and therefore these two variables represent different aspects of the rehabilitation process.

Discussion

The demographics of our Tennessee-based patient sample were unable to assist in predicting return to pre-injury full-time work. The age distribution of our patients was similar to that in our previous investigation, which was also based in Tennessee, ¹⁵ and within the range of other larger investigations. ^{5,7,9,13,18} The percentage of female patients in our current sample was lower than in our previous investigation, ¹⁵ although the percentage of female patients with complaints of low back pain varies significantly between investigations. ^{3,5-7,9,19,20}

There is conflicting evidence about whether or not Workman's Compensation by itself is a negative factor in predicting rehabilitation success in patients with complaints of low back pain. Although compensation has been documented as a negative factor in successful rehabilitation of these patients, 12 the highest success rates with rehabilitation for low back pain were in those patients who received the highest compensation payments. 13 This suggested that highly compensated patients may have a stronger incentive to return to previous employment and salary. In our current investigation, the percentile of patients who received Workman's Compensation was similar for the two groups, those

who returned to work and those who did not, which supports our previous investigation. ¹⁵ In the earlier investigation, our positive outcome frequency of Workman's Compensation patients at discharge was similar to that of insurers such as Medicare or private companies. A Michigan-based investigation also reported similar physical therapy success frequencies for patients receiving Workman's Compensation and those receiving no compensation. ⁹

Treatment attendance factors have also been previously utilized as predictors of rehabilitation for patients with low back pain. The number of treatments attended by patients in the present investigation and in several other published investigations was similar, 9,18,19 but more than we reported in our previous Tennessee-based investigation. 15 We believe that the higher number of visits in our current investigation was due to the higher cancellation frequency and lower compliance in our earlier investigation. Additionally, the health care support system around compensated patients is stronger due to their case management. We found that a compliance of lower than 80% predicted a poor outcome at rehabilitation discharge.¹⁵ A separate investigation observed that returnto-work frequency was independent of the treatment compliance.¹⁴ Surprisingly, in the present investigation the patients in both groups demonstrated a treatment compliance above 80%. However, the compliance of patients who failed to return to work was marginally lower than that of patients who did return to work. The interval between reporting low back injury and beginning rehabilitation has also been examined previously, 5,6,9,11,18 and longer intervals result in a poorer outcome at discharge. 6.11 The current results support these earlier investigations. Our patients who did not return to work waited twice as long between reporting the injury and beginning physical therapy as the return-to-work group did.

Previously reported low back injury and/or back surgery was also examined in the current investigation, and in previous investigations. 5,9,13 In the present investigation, the frequency of previous low back injury was not different between the patients who did and those who did not return to work. In contrast, fewer patients who had previous back surgery returned to work in both this and another investigation.¹³ Patients who had previous back surgery also waited longer between reporting the current injury and beginning physical therapy. This is the first investigation to demonstrate this relationship. Thus, the present injury may be more severe in patients who had previous back surgery, requiring a longer convalescence prior to rehabilitation. A conclusion of these results is that previous medical history should influence the convalescence and enrollment into physical therapy. These results also call into question the conclusion of a recent report documenting the value of early enrollment of patients with of low back pain into rehabilitation.6 In contrast, the lower compliance observed in the patients who did not return to pre-injury full-time work was not associated with previous surgery or the interval between reporting the injury and beginning physical therapy. These results suggest that low compliance with the treatment schedule is not related to previous low back injury and/or surgery, and may result from a psychosocial motive. Finally, working during rehabilitation has been previously examined, but not as a predictor of return-to-work success.9 Ours is the first investigation to utilize this variable as a predictor of return-to-work following rehabilitation. In patients who did not return to work, none worked full-time during rehabilitation.

In summary, the current investigation examined treatment independent variables that influenced return to full-time preinjury work in a sample of employees in Northeast Tennessee. Workman's Compensation alone was not a significant predictor of return-to-work. Compliance with the treatment schedule, interval between reporting the injury and beginning physical therapy, previous back surgery, and full-time work during rehabilitation were all predictors of return-towork. Previous surgery and interval to beginning physical therapy were related factors, suggesting that the previous medical condition may be influencing the current injury. In contrast, the low compliance of patients who did not return to work was not related to any documented previously reported low back injury and/or surgery, and represents some other psychosocioeconomic variable not examined in our investigation.

References

- 1. Kirkpatrick JS. Oh, my aching back: evaluation and surgical treatment of lumbar spine disorders. South Med J 89:935-939, 1996.
- 2 Frymoyer JW, Cats Baril WL: An overview of the incidences and costs of low back pain. Orthop Clin North Am 22:263-271, 1991.
- 3. Carey TS, Garrett J, Jackman A, et al: The outcomes and costs of care for acute low back pain among patients seen by primary care practitioners, chiropractors, and orthopedic surgeons. N Engl.1 Med 333 913-917, 1995.
- 4. Cherkin DC, Deyo RA, Battie M, et al: A comparison of physical therapy, chiropractic manipulation, and provision of an educational booklet for the treatment of patients with low back pain N Engl J Med 339:1021-1029, 1998
- Mielenz TJ, Carey TS, Dyrek DA, et al: Physical therapy utilization by patients with acute low back pain. Phys Ther 77:1040-1051, 1997.
 Ehrmann-Feldman D, Rossignol M, Abenhaim L, et al: Physician referral to physical therapy
- in a cohort of workers compensated for low back pain. Phys Ther 76:150-156, 1996
- 7. Tacci JA, Webster BS, Hashemi L, et al. Clinical practices in the management of new-onset, uncomplicated, low back workers' compensation disability claims. J Occup Environ Med 41:397-
- 8. Friedlieb OP: The impact of managed care on the diagnosis and treatment of low back pain:
 a preliminary report. Am. I Med Qual 9:24-29, 1994
 Ambrosius FM, Kremer AM, Herkner PB, et al. Outcome comparison of workers' compen-
- sation and noncompensation low back pain in a highly structured functional restoration program. J. Orthop Sports Phys Ther 21:7-12, 1995.
- 10. Di Fabio RP, Mackey G, Holte JB Physical therapy outcomes for patients receiving worker's compensation following treatment for herniated lumbar disc and mechanical low back pain syndrome. J Orthop Sports Phys Ther 23 180-187, 1996.
 - 11. Frymoyer JW Predicting disability from low back pain. Clin Orthop: 101-109, 1992
- 12 Fredrickson BE, Trief PM, VanBeveren P, et al: Rehabilitation of the patient with chronic back pain. A search for outcome predictors. Spine 13:351-353, 1988.
- 13. Barnes D, Smith D, Gatchel RJ, et al. Psychosocioeconomic predictors of treatment success/failure in chronic low-back pain patients. *Spine* 14 427-430, 1989. 14 Di Fabio RP, Mackey G, Holte JB. Disability and functional status in patients with low back
- pain receiving workers' compensation: a descriptive study with implications for the efficacy of physical therapy. *Phys Ther* 75,180-193, 1995.
- 15. Lowdermilk A, Panus PC, Kalbfleisch JH Correlates of low back pain outcomes in a community clinic. Tem Med 92:301-305, 1999.
 16. Davies Ol, Goldsmith PI: Statistical Methods in Research and Production: With Special

- Reference to the Chemical Industry, ed. New York, Hafter Publishing Co, 1972.

 17. Portney LG, Watkins MP Foundations of Clinical Research: Applications to Practice.

 Norwalk, CT, Appleton & Lange, 1993.

 18. Jette AM, Smith K, Haley SM, et al: Physical therapy episodes of care for patients with low back pain. Phys Ther 74:101-110, 1994.
- Battie MC, Cherkin DC, Dunn R, et al. Managing low back pain: attitudes and treatment preferences of physical therapists. *Phys Ther* 74:219-226, 1994.
 Daltroy LH, Iversen MD, Larson MG, et al. A controlled trial of an educational program to
- prevent low back injuries [see comments]. N Engl J Med 337:322-328, 1997.

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Vanderbilt Morning Report

Bilateral Adrenal Cortical Hyperplasia

Case Report

A 37-year-old white woman with a two-year history of hypertension that had been well controlled on atenolol 50 mg/day, was in her usual state of health until approximately two months earlier, when she went to an acute care clinic with an upper respiratory infection. Her blood pressure was 200/130 mm Hg. She was admitted to a hospital for further evaluation.

During that hospitalization, she was noted to be hypokalemic with a serum potassium of 3.0 mmol/L (normal range 3.5 to 5). Her sodium was 145 mmol/L (normal 135 to 145), chloride 103 mmol/L (normal 95 to 105), bicarbonate 30.1 mmol/L (normal 23 to 30), BUN 8.7 mg/dl (normal 5 to 25), creatinine 1.0 mg/dl (normal 0.7 to 1.5), and glucose 95 mg/dl (normal 70 to 110). A work-up for secondary causes for her hypertension included a dexamethasone suppression test, which was normal, plasma renin activity that was 0.4 ng/ml/hr (normal 0.4 to 8.8), and serum aldosterone that was 11 ng/dl (normal 3 to 25). Renal artery Doppler studies were without evidence of stenosis. Abdominal CT scan showed bilateral 1.5 cm adrenal masses consistent with hyperplastic adrenal tissue.

She was treated with multiple antihypertensive medications, including hydrochlorothiazide, quinapril, and doxazosin, and was referred to Vanderbilt Hospital for further evaluation.

On presentation to Vanderbilt, the patient was profoundly hypertensive despite medical therapy. She denied any symptoms, including headache, visual changes, chest pain, shortness of breath, edema, or flushing. She had noted the onset of nocturia over the past several weeks. She reported that she was compliant with all medications, denied the use of illicit drugs (including cocaine) but did report smoking half a pack of cigarettes per day for the past 20 years. Her medical history was significant for hypertension during her pregnancy seven years earlier, but was otherwise unremarkable.

Physical examination revealed an overweight white woman in no apparent distress. Her blood pressure was 214/136 mm Hg, and heart rate 72/min. Funduscopic examination was normal, without evidence of hypertensive retinop-

athy. Her neck was supple without bruits. Her lungs were clear to auscultation bilaterally, and cardiovascular examination revealed a regular rate and rhythm, with grade 3/6 systolic murmur at the left upper sternal border. Her abdomen was soft, obese, and non-tender, with normal bowel sounds and no detectable abdominal bruits. She had a trace of lower extremity edema with good distal pulses. Neurologic examination was normal.

She subsequently had a renal arteriogram that was normal, and 24-hour urine catecholamines were also within normal limits. Because of the severity of her hypertension, minoxidil therapy was initiated, with good control of her blood pressure. She subsequently had a saline suppression test for hyperaldosteronism. The results obtained after a two-hour infusion of saline (1250 cc) are shown in Table 1. The results were consistent with aldosteronism. Given the patient's CT scan results, she was diagnosed with primary aldosteronism due to bilateral adrenal cortical hyperplasia. After spironolactone therapy was initiated in addition to her other antihypertensive medications, the patient has done well, with good control of her blood pressure.

Discussion

Primary aldosteronism is caused by hypersecretion of the mineralocorticoid aldosterone from the adrenal glands. In most instances, the aldosteronism results from a unilateral adenoma (aldosteronoma), but can also be caused by hyperplasia of the adrenal cortex bilaterally (bilateral cortical hyperplasia), or in rare cases an adrenal carcinoma. Aldosteronomas occur in women twice as often as men, while bilateral cortical hyperplasia is more frequently encountered in men and tends to occur in older age groups than aldosteronomas.

Patients with hyperaldosteronism usually have hypokalemia as a result of excessive aldosterone production. Patients with aldosteronomas tend to be more hypokalemic than those with bilateral cortical hyperplasia. Mild diastolic hypertension and headache are also common. Polyuria occurs due to defective urinary concentrating ability, and affected individuals also have polydipsia. Patients usually do not have edema.

Laboratory findings consistent with primary aldosteronism include hypokalemia in persons not receiving potassium-wasting diuretics. Urinary specific gravity is frequently low, and urinary pH may be slightly basic due to secretion of ammonia and bicarbonate in response to the metabolic alkalosis that results from the renal effects of aldosterone.

Prepared by Anissa Slifer, MD, third year resident, and David M. Aronoff, MD, the Hugh J. Morgan chief medical resident, Vanderbilt University Medical Center, Nashville. Edited by Jason Morrow, MD.

TABLE 1 RESULTS OF SALINE SUPPRESSION TEST

Time	Serum Aldosterone (ng/dl) (normal 1 to 16)	Plasma Renin Activity (ng/ml) (normal 0.7 to 3.3)	Cortisol (µg/dl) (normal 4 to 20)
0	15.3	0.1	7.8
2 hours	19.4	0.1	7.6
4 hours	7.0	0.1	5.9

The criteria for diagnosis of aldosteronism include diastolic hypertension without edema, hyposecretion of renin that fails to increase with volume contraction, and hypersecretion of aldosterone that is not suppressed with volume expansion. Once these criteria have been demonstrated, computerized tomography of the adrenals should be done to determine whether an adenoma or hyperplasia is present. Occasionally an adenoma is too small to be detected. In this case, adrenal vein aldosterone sampling should be performed to localize the tumor. It is important to measure simultaneous cortisol levels when adrenal vein aldosterone is assessed, since ACTH and stress also increase aldosterone levels.1

The differential diagnosis for patients with hypertension and hypokalemia is relatively small, and includes hypertensive patients receiving diuretic therapy, licorice ingestion, secondary aldosteronism, or other syndromes associated with excess mineralocorticoids.² A major issue to address is whether the patient has primary or secondary hyperaldosteronism. This can be accomplished by measuring plasma renin activity. Patients with primary aldosteronism will have extremely low levels of renin due to negative feedback from the hypersecretion of aldosterone by the adrenal gland. On the other hand, patients with secondary hyperaldosteronism will have elevated plasma renin activity, which in turn drives the secretion of aldosterone. Once this determination has been made, primary aldosteronism due to an adenoma must be distinguished from bilateral nodular hyperplasia, since the latter is not benefitted by adrenalectomy whereas removal of an adenoma can produce a cure in a patient with an adrenal tumor.

A number of inherited disorders can mimic primary aldosteronism. For example, glucocorticoid-remediable aldosteronism is an autosomal dominant condition that results in overproduction of aldosterone that is sensitive to regulation by ACTH. It is treated by administration of glucocorticoids. Liddle's syndrome is another autosomal dominant

disorder that resembles primary aldosteronism. In this disorder, both renin and aldosterone levels are low, as opposed to the pattern observed in primary aldosteronism. 11-betahydroxysteroid dehydrogenase deficiency can also cause hypertension and hypokalemia. Lastly, the ingestion of chewing tobacco or licorice-containing products that contain glycyrrhizic acid can mimic hyperaldosteronism.

The treatment of primary aldosteronism due to a unilateral adenoma is surgical in most cases; however, dietary sodium restriction as well as the administration of spironolactone may provide effective control. Bilateral cortical hyperplasia is primarily managed medically, and patients are treated with spironolactone, triamterene, or amiloride. Surgery is reserved for cases that do not respond well to medical therapy.

References

- 1. Williams GH, Dluhy RG: Aldosteronism, in Fauci AS, Braunwald E (eds): Harrison's Principles of Internal Medicine, ed 14. New York, McGraw Hill, 1998, pp 2046-2049
 2. Ganguly A: Primary aldosteronism. N Engl J Med 339:1828-1834, 1998

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Tennessee's Medical Examiner System

Bruce P. Levy, MD

The primary mission of the Tennessee medical examiner system is to investigate, identify, and gain an understanding of unnatural deaths occurring throughout Tennessee. Our purpose is to serve our fellow citizens by protecting the public's health and safety, participating in the criminal justice system, and providing data for vital statistics.

The medical examiner system is a division of the Tennessee Department of Health. Our medical examiner system is a combination of both state and county functions. The responsibility and authority of the various components of the medical examiner system are defined under the laws of Tennessee.

The State Medical Examiner's function is to provide guidance and administration to the medical examiner division. The State Medical Examiner is required to be a licensed physician and a board certified forensic pathologist, and is appointed by the Commissioner of Health, with the approval of the Governor. The State Medical Examiner administers the archive of medical examiner investigations and forensic autopsies provided throughout the state. He is available to the county medical examiners, district attorneys general, public defenders, law enforcement, and other state and local agencies for consultation regarding medical examiner cases. Training and education are provided on the principles of medicolegal death investigation and forensic pathology for the same groups.

The county medical examiners are responsible for conducting death investigations in their jurisdictions, evaluating medical examiner jurisdiction, ordering autopsies, and determining the cause and manner of death. A county medical examiner is required to be a licensed physician or osteopath, but is not required to have any specialized training in pathology, forensic pathology, or death investigation as a prerequisite for the position. Each county is responsible for appointing its county medical examiner. The county medical examiners or the district attorneys general are the only persons who can legally order an autopsy on a body under the medical examiner law. In contrast to hospital autopsies, permission of the family or next-of-kin is not required for medical examiner autopsies. Since in many cases county medical examiners are not pathologists or forensic pathologists, they may contract with a pathologist to perform these autopsies for them.

From the Tennessee Department of Health, Nashville. Dr. Levy is chief medical examiner, State of Tennessee and Metro Nashville-Davidson County. Currently there is combination of state and county funding for the medical examiner system. Counties are responsible for funding the investigations of the county medical examiners, and also pay most of the costs of forensic autopsies ordered. The State funds the state medical examiner functions, and pays a small portion of the cost of the forensic autopsies. This funding system is unique, and is distinct from that of our neighboring states. In most similarly structured systems, the counties are responsible for the costs of the investigations of the county medical examiner or county coroner, while the State bears the entire expense for ordered forensic autopsies.

Under our system, deaths that meet criteria established under Tennessee law and by the county medical examiner should be reported for investigation. An initial investigation is made to determine whether this death falls under the jurisdiction of the medical examiner, and if so, whether an autopsy is required. The district attorney general may also order an autopsy on a body if the county medical examiner is unavailable or fails to act. The information obtained from the death investigation and autopsy is evaluated to rule on a cause and manner of death.

The investigations and autopsy reports performed under the medical examiner system throughout Tennessee are forwarded to the State Medical Examiner's office in Nashville. With that information, the State is able to evaluate death trends and monitor the workload of the county medical examiners.

The medical examiner system is currently undergoing change. A training manual for the county medical examiners has been written and distributed. Regional forensic seminars were conducted starting last fall, and will be periodically rotated throughout the state in the future. Tennessee's first State Medical Examiner's facility, to be located adjacent to the new Tennessee Bureau of Investigation facility in Nashville, will break ground this spring for occupancy in mid-2001. Issues regarding funding for the medical examiner system are being studied. Our long-term goal is to ensure that the quality of the medical examiner investigations and forensic autopsies meet nationally established standards, and are consistent wherever in the state a death occurs.

In future articles, I will be discussing various issues involving the medical examiner system and its interaction with the medical community and community at large. I would encourage any of you with an interest in or questions about the medical examiner system to contact your county medical examiner or me at the Davidson County Medical Examiner's Office.

TN DEPARTMENT OF MENTAL HEALTH/MENTAL RETARDATION

Physicians utilized in Knoxville, Chattanooga, Greeneville, Nashville, Memphis and Arlington. Salary potential up to \$140,000 based on specialty and experience. Preferred specialty in Psychiatry, Internal Medicine, or Family Practice. Physicians with a two year fellowship in Developmental Disabilities encouraged to apply, other specialties will be considered.

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Fax: (615) 231-5396

James G. Armstrong, Superintendent Arlington Developmental Center 11293 Memphis-Arlington Road Arlington, TN 38220-5022 Telephone: (901) 745-7575

Fax: (901) 7457272

Henry C. Meece, Superintendent Greene Valley Developmental Center P.O. Box 910 Greeneville, TN 37744-0910

Telephone: (423) 787-6568

Fax: (423) 787-6574

Joe Carobene, Superintendent Middle TN Mental Health Institute 221 Stewarts Ferry Pike Nashville, TN 37214

Telephone: (615) 902-7532

Fax: (615) 902-7541

Lee Thomas, Superintendent Lakeshore Mental Health Institute 5908 Lyons View Pike Knoxville, TN 37919 Telephone: (423) 584-1561

Fax: (423) 450-5203

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Russell Vatter, Superintendent Moccasin Bend Mental Health Institute 100 Moccasin Bend Road Chattanooga, TN 37402 Telephone: (423) 785-2271

Elizabeth Littlefield, Superintendent Western Mental Health Institute Highway 64 West Bolivar, TN 38074

Telephone: (901) 658-5141 Fax: (901) 658-2783

Pete Davidson, Superintendent Memphis Mental Health Institute 865 Poplar Avenue Memphis, TN 38174-0966 Telephone: (901) 524-1200

Fax: (901) 543-6055

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TMA Alliance Report

TMA Alliance Year-End Report

This year TMA alliances have been actively promoting wise and healthy choices in lifestyles. Over 55,000 pieces of literature, including brochures, have been distributed in schools, community centers, and at health fairs.

One of the programs we wish to highlight that our alliances have been active in this year is the "Baby Think It Over" doll promoting teen pregnancy awareness. These dolls are being purchased by county alliances and given to schools in their communities. Students, both boys and girls, have to take these dolls home and take care of them over the weekend. The student also has to carry all of the baby supplies such as diaper bag, car seat, etc. The dolls are programmed with a computer chip that has to be turned off by the student with a special key. If the doll is neglected, not picked up while being fed, diapered or held, this is recorded by the computer. The student is supposed to change diapers, feed the doll, and hold it using the key mechanism. The students have to carry the doll with them wherever they go all weekend. When the doll is turned in, the computer tells the teacher if the baby was abused or not taken care of over the weekend.

One of our goals this year was violence awareness—both domestic and guns. Members have participated in teacher training and school workshops promoting this awareness. They have held "Kindness is Contagious" programs dealing with bullying, and collected items for domestic violence shelters. Most alliances participated in SAVE (Stop America's Violence Everywhere) projects.

They have held and participated in relays, runs, and walks for cancer awareness. They have also made teens aware of the harmful effects of tobacco through smoking models, videos, displays, and brochures. They have been legislatively active through phone calls and visits to legislators. Tennessee continues to lead the nation in collecting funds for the AMA Foundation. We have raised over \$205,000 to date.

Thanks to you, the TMA, and your staff for all of your continued support of the Alliance. I also want to thank each of you for the opportunity to have served the TMA Alliance as your president.

Brenda Seals, TMAA President

In Memoriam

Marvin R. Batchelor, MD, age 80. Died March 12, 2000. Graduate of University of Tennessee College of Medicine. Member of Bradley County Medical Society.

Frederick W. Carr, MD, age 87. Died November 14, 1999. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

Larry B. Morrison, MD, age 61. Died January 17, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Alfonso D. Lopez, MD, age 69. Died February 5, 2000. Graduate of University of Cartagena, Columbia. Member of Washington-Unicoi-Johnson County Medical Association.

William Isbell Proffitt, MD, age 75. Died February 23, 2000. Graduate of University of Tennessee College of Medicine. Member of Bradley County Medical Society.

Paul H. Williams, MD, age 71. Died March 14, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Wendell Winfred Wilson, MD, age 82. Died March 15, 2000. Graduate of University of Tennessee College of Medicine. Member of Nashville Academy of Medicine.

Personal News

Daniel Brookoff, MD, Memphis, has been selected by Donna Shalala, secretary of Health and Human Services, to serve on the National Advisory Council for the Center for Substance Abuse Prevention.

Kerry W. Gateley, MD, MPH, Franklin, has received designation as a certified physician executive by the Certifying Commission in Medical Management.

Jesse Walker, MD, LaFollette, has been named the 2000 Citizen of the Year by the South Campbell County Rotary Club.

Ralph E. Wesley, MD, Nashville, has been elected presidentelect of the American Society of Ophthalmic Plastic and Reconstructive Surgery.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during February, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Philip D. Bertram, MD, Cookeville Richard A. Feit, MD, Kingsport James W. Felch, MD, Nashville Mark P. Freeman, MD, Nashville Roland W. Gray, MD, Hermitage Lifford L. Lancaster, MD, Nashville Doniah H. Mishu, MD, Goodlettsville Mohammed Moinuddin, MD, Memphis Bharat Z. Patel, MD, Mooresburg Randal J. Rabon, MD, Johnson City Marc H. Stegman, MD, Memphis Robert W. Wahl, MD, Nashville Joseph A. Walton, MD, Johnson City William O. Whetsell Jr., MD, Nashville

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Chattanooga-Hamilton County Medical Society

John D. Bonner, MD, Fort Oglethorpe Richard I. Breazeale, MD, Chattanooga Sajeel Ijaz, MD, Jasper Robert A. Maxwell, MD, Chattanooga Linda M. Pate, MD, Jasper Jack F. Rutledge, MD, Chattanooga

Avinash M. Sud, MD, Chattanooga Qian Y. Xie, MD, Chattanooga

Lakeway Medical Society

Jeffrey A. Haas, DO, Morristown

Marshall County Medical Society Raul Coronado, MD, Nashville

Maury County Medical Society Angelo Difelice, MD, Columbia

Northwest Tennessee Academy of Medicine David G. Truett, MD, Union City

Putnam County Medical Society Lisa M. Whiteaker, MD, Cookeville

Scott County Medical Society William L. Hardy, MD, Oneida

Sullivan County Medical Society Christian F. Cooper, MD, Johnson City Gregory H. Pastrick, MD, Kingsport Renato M. Santos, MD, Kingsport Whitaker M. Smith, MD, Kingsport

Washington-Unicoi-Johnson County Medical Association

Mary A. Hooks, MD, Johnson City Eugene H. McCoskey, DO, Johnson City

Williamson County Medical Society Thomas J. Carr, MD, Franklin John W. Chambers Jr, MD, Franklin Phyllis L. Townsend, MD, Franklin

Wilson County Medical Society Thomas S. Baker, MD, Lebanon

Student Members—Memphis-Shelby County Medical Society

Jason L. Aldred
Katherine F. Allan
Christopher S. Barnett
Joel R. Baskin
Santanu Biswas
Dawn M. Borromeo
Brenton Coger
Robert W. Corner
Marc C. Cruser
Matthew A. Dress
Lisa M. Eddy
Eugene H. Eng

Rebecca A. Fleming
Vanpraseuth Fongnaly
Wiley L. Fowler
Geoffrey Goodin
Dara L. Grieger
David T. Handley
Laura M. Hargraves
Amy L. Hirsh
Scot Holman
Megan C. Hood
Stefan Hood
Donnie W. Huff

Sabrina B. Hutchins Jennifer S. Hyer Amir A. Jahangir Marie L. Joiner Sandra D. Kaplan Erin C. Kish Tim S. Larson Hui Bae H. Lee Roger L. McGee Shannon L. Miller Van A. Montgomery Jamie P. Morano Allison D. Muia Mark A. Muiznieks Robert G. Mynatt Thomas W. Nipper Diana M. Padgett Akta A. Patel Troy L. Ploger Benjamin S. Powell Sujana K. Reddy Brian K. Reed Johnie Rose Nicole Roy Wendy L. Sacks Leah C. Saunders Monica K. Sikka Leigh A. Simpson

L. Chana Spearmon Ronald A. Stanton Courtney L. Stroupe Susanna Swilley Keith Tonkin Jennifer H. Towbin Patrick Toy Lisa S. Usdan Keith A. Vossel Matthew S. Wilson John S. Winestone Gregory W. Wolfe Patrick S. Zelley Jennifer Zurawick

Student Members— Nashville Academy of Medicine

Medicine
Gustav Blomquist
Brian M. Chin
Meg Corrigan
Samuel Coy
Benjamin S. Heavrin
Lin Jin
Susannah V. Quisling
Jonathan Spanier
Sudheer Surpure

TMA Board of Trustees Meeting Minutes

January 22, 2000

The following is a summary of actions taken by the Board of Trustees of the Tennessee Medical Association at its regular first quarter meeting held in Franklin, Tennessee.

THE BOARD:

TennCare Reform Recommendations: Approved for distribution an official statement on the Future of TennCare and an Executive Summary on TennCare Reform Recommendations.

Listening Tour and Managed Care Initiative: Received a report for Mr. Jim Toth, president of Edge Healthcare Research, on the results and recommendations of the TMA 2000 Listening Tour. Named Dr. David Gerkin, Knoxville, as chairman of the Futures Task Force.

Judicial Council Report: Received a report from the Judicial Council on their review and interpretation of Resolution No. 32-98 "Remuneration to Physicians for Prescribing Unproven Remedies."

2000 Budget: Approved a final budget of \$3,173,000 for fiscal year 2000.

State Appointments: Agreed to submit the names of the following physicians for consideration of appointment to the Children's Special Services Board. For pediatric endocrinologist: Drs. Iris Snider, Athens (for reappointment); Alan J. Cohen, Memphis; and Robert Marshall, Chattanooga. For pediatric neurologists: Drs. Billy Arrant, Chattanooga (for reappointment); J. T. Jabbour, Memphis; and Karen Putnam, Nashville.

TennCare Pharmaceutical Care Advisory Board: Agreed to submit the following names for consideration of appointment: Drs. Wade Denny, Columbia (for reappointment); Tedford Taylor, Johnson City; and Felicito Fernando, Cleveland.

Cancer Reporting Advisory Committee: Agreed to submit the following names for consideration of appointment to fill the unexpired term of the late Dr. Robert Hardy, Nashville: Drs. John Barton, Murfreesboro; Sanford Sharp, Chattanooga; and Kenneth M. Lloyd, Nashville.

Quarterly Reports: The Board received quarterly reports from the following: IMPACT, TN Delegation to the AMA, SVMIC, TMA Alliance, TMA Physician Services, Tennessee Medical Foundation, Tennessee Medical Education Fund, Tennessee Council on Medical Specialty Societies, TN Physicians' Quality Verification Organization, and the Young Physician Section.

Committee Reports: Accepted written reports from the Practice Management and Managed Care Committee, Committee on Legislation, Membership Committee, Committee on Communications and Public Relations, and Committee on Rural Physicians

Nominating Committee: Appointed the following physicians to serve on the 2000 Nominating Committee: East Tennessee: Drs. Leonard A. Brabson, Knoxville; Donald Franklin Jr., Chattanooga; and David K. Garriott, Kingsport. Middle Tennessee: Drs. John J. Warner, Nashville; J. Fred Ralston Jr., Fayetteville; and Subhi D. Ali, Waverly. West Tennessee: Drs. John W. Hale, Union City; James D. King, Selmer; and Mack A. Land, Memphis.

TMA Committees for 2000: Appointed members to serve on each of the TMA Committees for a two-year term.

Tennessee Medical Education Fund, Inc.: Agreed to submit the names of Drs. Subhi D. Ali, Waverly; Charles Ed Allen, Johnson City; and E. Conrad Shackleford Jr., Nashville, for consideration of appointment to the TMEF Board of Directors.

IMPACT Board of Directors: Reconfirmed all members of the IMPACT Board of Directors as directed in the IMPACT bylaws.

Distinguished Service Award: Selected Dr. John E. Chapman, Nashville, as the recipient of the 2000 TMA Distinguished Service Award.

Community Service Award: Accepted the recommendations of the Committee on Communications and Public Relations and agreed to present the Community Service Award to: Alive Hospice (submitted by Nashville Academy of Medicine); Assissi Foundation (submitted by the Memphis & Shelby County Medical Society); and Healing Hands Health Center (submitted by the Sullivan County Medical Society).

AMA Awards: Agreed to nominate Dr. John E. Chapman, Nashville, to receive the AMA's Distinguished Service Award.

TPQVO: Agreed to reappoint Drs. David G. Gerkin, Knoxville, as governor and Barrett F. Rosen, Nashville, as substitute representative to represent the Association on the TPQVO Board of Governors. Also agreed to appoint Mr. Donald Alexander to serve as TMA executive on the Board.

THE EXECUTIVE COMMITTEE, at its November 17, 1999 meeting, took the following actions:

Tennessee Medicine: Agreed to continue to publish Ten-

nessee Medicine monthly through the year 2000.

Utilization Review Board: Agreed to submit the names of Drs. M. Lee Carter, Huntingdon; and Charles W. White Jr, Lexington, for consideration of appointment to the Utilization Review Board.

Legislative Committee Recommendations: Accepted the recommendations of the Legislative Committee to: (1) create a task force to address scope of practice issues; and (2) direct the Interprofessional Liaison Committee to address the residency program of osteopaths and the inability of hospitals to verify residencies that are not recognized by the AMA or the American Board of Residency.

TennCare Task Force Update: Agreed to send a letter to Governor Sundquist noting that if TennCare is to survive, the program needed to be changed and to request that TMA be given the opportunity to present provider input.

E-commerce Task Force: Appointed Drs. James King, Selmer; David Gerkin, Knoxville; and Robert Patton, Kingsport, to serve on the e-commerce task force.

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

Vanderbilt University Medical Center

Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians must be licensed and be in active practice with evidence of liability coverage.

Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

June 1-3	O 441. A	1 D.	4 T T14	nd Symposium
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June 10 Dermatology Conference

June 21-24 Lonnie S. Burnett Ob-Gyn Society—Amelia Island, FL

July 2-4 3rd Annual Vanderbilt/Duke Ultrasound Symposium:

Color Doppler—Asheville, NC

July 17-22 23rd Annual Contemporary Neurology Symposium— Hilton Head Island, SC

July 26-28 Prescribing Controlled Drugs

Aug 31-Sep 2 6th Annual Fall Neonatology Symposium—Charleston, SC

Sep 16 Depression and Neurology

Sep 20-22 Prescribing Controlled Drugs

Oct 13-14 Phonosurgery Tutorial & Hands-On Workshop

Oct 27-28 Laryngovideostroboscopy and Therapeutic Implications

Nov 3 3rd Annual HIV/AIDS Symposium

Nov 29-Dec 1 Prescribing Controlled Drugs

Dec 1-2 26th Annual High Risk Obstetrics Seminar

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

Continuing Education Schedule

Memphis

Julic 1-2	2000 Ocheral Surgery Opuate
June 10	The Memphis Eye Convention
June 10	T.O.P.S.
June 16	Pediatric Epilepsy Management for the

2000 General Surgery Undate

June 16 Pediatric Epilepsy Management for the Primary Care Physician

July 31-Aug 5 14th Annual Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.

Sept 13-16 Newborn Conference
Oct 6 Kaleidoscope of LD Conference
Dec 1-3 Clinical Update in Ophthalmology

Knoxville

June 5-6	16th Annual Alzheimer's Symposium—Gatlinburg
June 12-13	Pediatric Advanced Life Support—Gatlinburg
June 15-17	45th Great Smoky Mountains Pediatric Seminar-
	Gatlinburg
June 21-22	Pediatric Life Support
June 26-28	Advanced Cardiac Life Support
July 7-8	Drugs of the Millennium & Herbal Supplements (and)

Medication for the Elderly Patient: Drug Interactions & Treatment Considerations—Franklin

July Advanced Life Support in Obstetrics

July Advanced Life Support in Obstetrics
Sept 20-23 Cardiology & Internal Medicine Update 2000
Nov 8 5th Annual Pediatric Trauma & Emergency Medicine

Nov 14-16 Advanced Cardiac Life Support Nov 29-30 Pediatric Life Support

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Calls are answered by a team of HIV experts consisting of physicians, nurse practitioners, and clinical pharmacists.

Consultants are on duty between 10:30 am and 8:00 pm EST. Calls at other times are recorded and returned as soon as possible.

Funded through:

Health Resources and Service Administration, AIDS Education and Training Centers, and the American Academy of Family Physicians.

Chattanooga

June 7-10 Family Medicine Update and Review Course

June 22-23 Ob/Gyn Seminar

Nov 30-Dec 17th Annual Internal Medicine Update
Dec 2 10th Care of the Aging Patient Symposium

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.

Meharry Medical College

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Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Fee: \$15 per hour of educational experience (the days need not be consecutive). If you are unable to attend the scheduled activity and notify us by 8:30 AM of the appointed day, we will refund all but \$50 of the fee. Credit: Meharry is accredited by the Accreditation Council for Continuing Medical Education to sponsor CME for physicians. Also meets the criteria for AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. Application: For information contact Office of College Relations & Lifelong Learning, Meharry Medical College, Nashville, TN 37208, Tel. (615) 327-6235.

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901-422-0201, (Fax) 901-422-0440, cohara@jacksonclinic.com

Career Opportunity Advertising

Listings for Career Opportunities are sold as follows: \$35 for the first 50 words (\$25 for TMA members), 25 cents for each additional word. Count as one word all single words, two initials of a name, single numbers, groups of numbers, hyphenated words, and abbreviations. Advertisers may utilize a box number for confidentiality, if desired, in care of Tennessee Medicine, PO Box 120909, Nashville, TN 37212-0909. Use of this box in an ad will add eight words to the total count.

All orders must be submitted in writing by the 25th of the 2nd month preceding the desired month of publication, and will be subject to approval. No phone orders will be accepted. Payment must accompany order. Each listing will be removed after its first publication unless otherwise instructed. Fee-for-service agency advertisements are not accepted in this section.

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FAMILY PHYSICIAN or MEDICINE-PEDIATRIC PHYSICIAN needed in Crossville, Tennessee, for multispecialty group. No obstetrics required. Approximately three call nights per month. Group is replete with family-oriented physicians in a family-oriented community. Cumberland Medical Center Hospital is listed in top 100 hospitals in the nation. Contact Doug Carpenter, MD, FAAFP, at 931-484-5141 or FAX CV to 931-484-5620.

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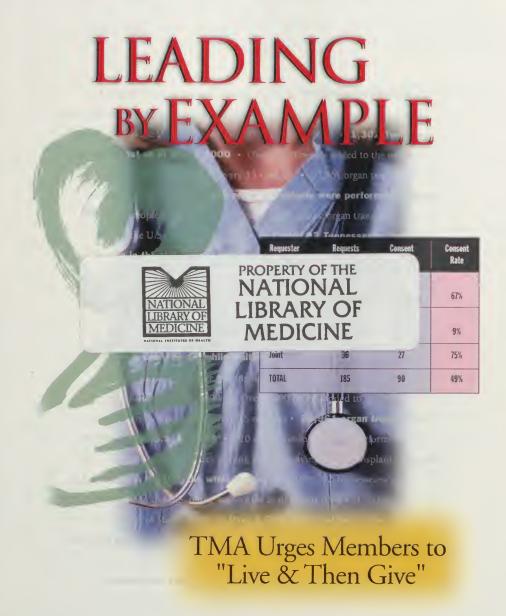
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Fax (615) 383-5918 e-mail jeanw@tma.medwire.org

Editor

John B. Thomison, MD

Assistant Editor Robert W. Ikard, MD

Managing Editor Jean Wishnick

Business Manager Donald H. Alexander

Sr. V.P.—Communications
Russ Miller

Advertising Representative Jean Wishnick Call (615) 385-2100 or

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President's Comments



Barrett F. Rosen, MD

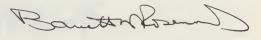
Attacking the Problems

I recently had the opportunity to attend the AMA-sponsored National Leadership Development Conference. The presentations I heard made me realize that while there are many problems facing us, I am excited about what the future may bring. I feel strongly that the AMA leadership has charted a course that will bring some order and sense to the chaos we have been seeing.

The current theme of the AMA is "Is it good medicine?" To me this certainly sums up how we need to be thinking about our approaches to all of the issues we face every day. If this is the central focus of all we do, we can proudly stand up for our principles and easily defend whatever stance we need to take. While there has certainly been an erosion in the level of "respect and stature" that the public has for "medicine," we can still use the one-on-one influence we have on each of our patients as long as we know that we are concerned about what is best to insure good care of them.

I would urge each of you to carefully assess your membership in the AMA. While I know that there are always items that each of us can find that do not totally fit with our individual agendas, when you look at the whole picture you have to understand that having *one voice* to speak for us makes the message much more effective. As long as our enemies (and there are a lot of them!) consider us divided, they will continue to attack from all directions. Tennessee is in danger of losing another AMA delegate if we continue to lose AMA members. If we are to have significant influence on what happens, we must have members! Please look at the whole array of programs and services that the AMA offers. Just insuring that we can be reimbursed for consultations will far more than pay for each of our dues. This was accomplished by the TMA in conjunction with the AMA. This is only a small example of what these organizations can do if we give them the power needed.

One of the speakers made a statement that has provoked me to think a lot about what I do every day as I both try to take care of my patients and also represent all of you as your president. He said "Becoming a physician is a willful decision to make someone else's problems yours." There is no question in my mind that if we couple this philosophy with "Is it good medicine?" we can successfully attack and resolve most of what we are facing. As always I am anxious to hear from anyone who has thoughts, concerns, ideas, etc. I can be effective only if I know what is needed!





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John B. Thomison, MD

The Shadow of a Doubt

For some time now the newspapers have been rife with lurid accounts of every inch of the last mile on the rocky road toward expiation for the sins of two convicted Tennessee criminals. The form that such expiation should take has again become a sticky wicket, producing much fodder for the media mill. Even though all of the courts are agreed that the two (among others still in the queue) must pay with their lives, the woods are filled with dissenters. On occasion I have been asked why I don't write an editorial about it. So I shall try, despite the difficulties inherent in it, which are first that I'm chicken, and second that I have mixed feelings about it

When I started trying to sort those feelings out, Robert Glen Coe was still alive, but on shaky ground that his lawyers were furiously mining. If anyone needed to die, it would seem he should be one of them, since no one could doubt that he first raped and then murdered a child. He is now dead. Philip Workman, convicted of killing a policeman, is still alive, but his fate is still undecided. If anyone on death row should be allowed to live, he would seem to be one of those, since there is more than a shadow of a doubt that he himself did the killing. The argument advanced by the prosecution, and largely accepted by the courts, is that whether or not the fatal bullet came from his gun, he instigated the robbery that led to the officer's death. The Supreme Court and the governor have refused to intervene, and his fate is apparently sealed.

Before I go any further, I need to say that I have come to be opposed to the death penalty, but not because I object to ending the life of such as Robert Coe. I have always defended the death penalty as being a just way for payback, assuming there should be payback. The principal reason for payback should not be for revenge, but as a deterrent. I have become persuaded that in today's climate of violence and cheap life, and considering the ridiculous and even unconscionable way in which the appeals process is administered, it deters no criminal.

My opposition to the death penalty stems from a conviction about what I think should be obvious, which is that justice is too often not served for death to be an appropriate option. For a variety of reasons the judgment is not evenly applied, and the death penalty is of all places the one where there is no room for error—absolutely no room. Workman made the statement that only God has the right to decide when his life should end. While that might indeed be true, it also might be true that it was God's decision that his life should end now at the executioner's hand. Since vanishingly few people have ever been clear as to what precisely God wants, even though hordes of people will tell you *they* know, it is folly to invoke God's will at all in that decision. Such a decision has to be made by human beings, and though they may seek God's guidance, there is no assurance the petitioners will be enlightened.

A life must never be forfeit unless guilt has been established beyond a shadow of a doubt. People have been put to death for crimes deemed beyond a shadow of a doubt to have been committed by them, only to have the evidence later refuted. There is no room for such gross miscarriage of justice. Every other personal damage can be rectified to some degree or other. This one can't be—at all, not ever. And even though that life might be precious to no one but its owner, that is sufficient.

Since that miscarriage does happen—mercifully not often, but sometimes—what I think is that Tennessee, and the rest of these United States, should join the rest of the civilized world and abjure death as an option for punishment.

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Letters to the Editor

Editorials Praised

To the Editor:

Since I have been back in Nashville for two years, I must say that I have thoroughly enjoyed reading your editorials in Tennessee Medicine each month. Rarely do I have the opportunity to read every article in the various issues. However, I always find time to read your thoroughly delightful renditions of medicine, life, and the woes of eating ice cream. Please know that you have a fan out here in the doctor's world who very much appreciates all that you do for our wonderful profession and fine state.

> Jonathan C. Nesbitt, MD Saint Thomas Medical Center 4230 Harding Road Suite 501 Nashville, TN 37205

Trauma Rounds

To the Editor:

I was looking through the April 2000 issue of Tennessee Medicine and came across a Trauma Rounds article published from the East Tennessee State University Medical Center entitled "Percutaneous Transluminal Angioplasty of Acute Traumatic Renal Artery Occlusion" (Tenn Med 93:140-141, 2000). It amazes me that such an article would be published, and further that someone would write up this case.

It seems to me that the case was a mismanagement of an occluded left renal artery and it was proved by the fact that two months later the artery had to be removed. The conclusion that further evaluation of renal artery stenting after prolonged occlusion seems to be warranted is totally unsupported by this article. This conclusion further ignores the fact that, as they noted earlier in the article, there was some risk to this procedure.

I think prior to including such articles in this journal, we should have them more carefully reviewed by peer physicians.

> Richard A. Brinner, MD Premier Surgical Associates 501 19th Street Suite 501 Knoxville, Tennessee 37916

Reply

We are gratified that our article on angioplasty of acute traumatic renal artery occlusion generated interest in the readership. Unfortunately we believe that Dr. Brinner either misunderstood the article or else he believes that only "perfect results" should be published.

The alternative options in our case were to either perform a midline laparotomy to explore the renal artery (which probably would have necessitated a spenectomy) or to have done nothing. In the slim hopes of saving this young girl's kidney, we decided to attempt angioplasty. The procedure worked in that she was spared intra-abdominal surgery and kept her spleen. It failed in the formation of a pseudoaneurysm necessitating an elective retroperitoneal nephrectomy.

There are over 100 articles on renal angioplasty in the literature, but at the time we did this case, we could not find any on traumatic occlusion nor the use of a stent a young girl. Since then, however, there have been five other published reports, four of which have used a stent.²⁻⁶ We stand by our conclusion that the use of a stent might well have prevented the formation of the pseudoaneurysm and should be further investigated. This may well become the procedure of choice in some instances in this injury.

References

- 1. Lutkevich C, Hall JR, et al: Percutaneous transluminal angioplasty of an acute traumatic renal artery occlusion. Tenn Med 93:140-141, 2000.
- 2 Bussman WD, Grutzmacher P: [Transluminal angioplasie in acute occlusion of the renal artery]. Disch Med Wochenschr 22:1584-1587, 1982.
- 3. Goodman DN, Saibil EA, Kodama RT: Traumatic intimal tear of the renal artery treated by insertion of a Palmaz stent. Cardiovasc Intervent Radiol 21:69-72, 1998.
- 4 Paul JL, Otal P, Perreault P, et al: Treatment of posttraumatic dissection of the renal artery with
- endoprosthesis in a 15-year-old girl. *J Trauma* 47:169-172, 1999.
 5. Villas PA, Cohen G, Putman SG III, et al: Wallstent placement in a renal artery after blunt abdominal trauma. *J Trauma* 46:1137-1139, 1999.
- 6. Whigham CJ Jr, Bodenhamer JR, Miller JK: Use of the Palmaz stent in primary treatment of renal artery intimal injury secondary to blunt trauma. J Vasc Interv Radiol 6:175-178, 1995.

John R. Hall, MD, FACS Associate Professor of Surgery East Tennessee State University PO Box 70575 Johnson City, TN 37614-0575

Tobacco Settlement

To the Editor:

Thank you so much for the wonderful article in the April issue of Tennessee Medicine, entitled "Tobacco Settlement Dollars a 'Burning Issue' for TMA," written by Brenda Williams (Tenn Med 93:125-127, 2000). I found the article quite informative and somewhat irritating. As a physician whose primary interest is lung cancer, I am thoroughly amazed that our state may utilize the windfall monies for other pet projects. Though I have only been in Tennessee for two years, I look forward to the opportunity to thrust my zeal for an anti-tobacco campaign in any way, shape, or form. If there is anything that I can do to help play a part to re-route these funds for that direct purpose, I would be more than happy to do so. Again, thank you so much for your fine article.

> Jonathan C. Nesbitt, MD 4230 Harding Road Suite 501 Nashville, TN 37205



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Tennessee Tar Wars

Loren A. Crown, MD; Nancy M. Rochstroh, MD

s the new millennium begins, the medical profession needs to rally in order to combat the tobacco industry. As information about the dangers of smoking becomes more mainstream, the sophisticated marketing campaign of the tobacco industry becomes more insidious. The tobacco industry spends \$12 million every day to convert people into smokers. By promoting a clean-cut corporate image while paying for product placement in the movies and, most disappointingly, by targeting children, the tobacco industry demonstrates that it will respond in any possible manner to continue turning a profit.

The money awarded to the Tennessee State government through tobacco taxes and legal settlements must be allocated to fund antismoking campaigns and to promote smoking cessation programs. Although this sudden windfall could be used to pad the budget or fund other special interests, the money awarded should be used directly in the fight against tobacco, or we shall inherit a never-ending flow of lung damaged patients.

As physicians at the University of Tennessee, Family Medicine-Tipton Residency Program, we have had the privilege of participating in the American Academy of Family Physicians (AAFP) Tar Wars curriculum and would like to share our experiences. The Tar Wars program is a pro-health, tobacco-free education program targeting fifth graders. The ultimate goal of the program is to discourage tobacco use among the young. The key elements are its interactive format, emphasis on community involvement, and education by health professionals. As family medicine physicians, we believe in the tenets of prevention. We were thrilled when our residency program presented its first Tar Wars program in 1998.

he 12 residents from our site this year were dispatched to the five schools in Tipton County to talk about tobacco use and the health dangers it represents. We recall our trepidation of speaking to a group of fifth graders. Certain to be apathetic and unresponsive to a presentation not involving video games, "virtual realities," or Pokemon[©], how could a boisterous group of preteens sit

still to hear such a gloomy but critically important message? Fortunately, the physicians and educators who developed this interactive curriculum shrewdly picked an age group and format that worked perfectly together. This program consists of a preliminary activity in which the students estimate how many fifth graders, ninth graders, and adults do not smoke, list ways that tobacco use is harmful, list positive effects of not using tobacco, and then take a test. The physician presentation reviews the short-term and long-term health effects, the financial cost of using tobacco, the reasons why people might use tobacco, the clever advertising the tobacco companies employ (along with identifying the lies), and the poster contest guidelines. This might sound boring, but once the fifth graders have simulated chronic obstructive pulmonary disease (COPD) by breathing through a straw while jogging in place, they are captivated. Following the presentation, the teachers collect the submitted posters demonstrating the positive effects of not using tobacco products, and have the students complete a post-test.

The preparation needed to present Tar Wars includes requesting the curriculum kits from the AAFP, making photocopies, and finding some deceptive tobacco advertisements to put on a poster board. Participation in the poster contest improves when a monetary award for the winning poster is offered! School nurses, physical education instructors, and science teachers at schools are excellent resources and facilitators. The number and size of the classes at a particular school dictate the number of presentations. With the ever-increasing demands on our time from so many obligations, physicians feel overextended. The thought of another commitment sounds like an abomination, and we might gladly leave the task of health education to others. This is, perhaps, the single greatest mistake that our profession could make in this campaign. Our community needs leadership—physician leadership—in the fight against tobacco use. We firmly believe that the investment we make in today's use will yield dividends in the future.

After polling the physicians and medical students who presented this year, 100% stated that they believe that this project is worthwhile and that they would participate again. Although not all of us had a class of fifth graders chanting our name, as one doctor experienced this year, we know that we will *all* have another chance next year.

From the Department of Family Medicine, University of Tennessee College of Medicine, Memphis.

Reprint requests to ED/Baptist Memorial/Tipton, 1995 Hwy 51 S, Suite 111, Covington, TN 38019 (Dr. Crown).

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Practicing Medicine

Organ Donation Awareness Program Targets Physicians

TMA Members Urged to "Live & Then Give"

Brenda Williams

It may seem like preaching to the choir, but a new campaign is underway to encourage physicians to sign up as organ donors and help spread the word about the success and benefits of organ donation and transplantation. First launched by the Texas

Medical Association, "Live & Then Give" was announced nationally by the American Medical Association and statewide by the Tennessee Medical Association on National Donor Day, February 12.

"Lead by example" was the challenge set forth by TMA Immediate Past-President Dr. J. Chris Fleming and other Association officials, who say they have no statistics on the number of Tennessee physicians who are registered donors. "We need to do that survey," says TMA Communications Director Russ Miller. "We need to determine first at what level physicians have volunteered to be organ donors in our state . . . and then move the needle."

Moving the Needle

To "move the needle," Miller says the TMA will be mailing out brochures with donor cards this summer to the offices of its 6,800 members; there will be information and links on Medwire.org, the TMA Web site; Miller adds that there are efforts to turn TMA headquarters into a repository of information on organ donation and transplantation. "It's an educational issue," he explains. "The more you learn about all the positive benefits of organ donation, the fears and the mystery of it decrease. It's just a question of getting the word out." He adds the effort will take time, but that is part of the plan. "We don't want to be make a big splash, 'Hey, everyone, sign your donor card,' and that's it. We want it to be a long-term, protracted campaign."

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

"Being physicians, we need to do a better job ourselves about becoming organ donors. We need to lead by example."

> Dr. J. Chris Fleming TMA Immediate Past-President

Miller explains that the TMA push will focus first on signing up physicians and their so-called extended family—their staff, their own family members, colleagues, and others in their professional sphere of influence; later on, the push will expand

to include patients. Miller summarizes: "We hope that in the long haul of our campaign, outside of the traditional places of information, such as Tennessee Donor Services, the next thought would be for doctors to get information from TMA, and for patients to get information from their doctors."

Donor Doctors Make Sense

Tennessee Donor Services (TDS) welcomes the effort, according to Executive Director Larry Cochran. "We've seen that having donation information available in doctors' offices is a good thing," Cochran says. "We want the public—including doctors—to make that decision long before they ever face the event."

Cochran adds that the campaign to sign up doctors as registered donors makes sense. "Physicians are and always will be a vital part of the donation process, not only in terms of counseling the patient before they have to face that event, but in working in collaboration with TDS to help families

face the end-of-life decisions," Cochran says. "Daily, by example, we'd like to see as many physicians as possible make the decision to be donors themselves."

Cochran says that as the official organ donation and transplantation advocate and recovery organization in the state, TDS works hand-inglove with physicians and



Larry Cochran

other hospital staff to make those decisions easier for patients' families. A recent survey found the donation consent rate is as much as 75% higher when a collaborative effort is used, compared to the consent obtained when families are approached by the doctor or the organ procurement agency alone. "Tennessee law and federal regulations were put into place to ensure that physicians and organ recovery professionals work together when introducing the topic of donation. This partnership model consistently results in the highest like-

lihood to consent to donating life-saving organs." Cochran adds that TDS coordinators often spend hours with grieving loved ones, making sure they understand and accept brain death and gently broaching the subject of donation options. "We will send staff over to spend four to six to eight hours with them, trying to help them. Having the time to spend with the family is one of the most critical steps in the consent process, and doctors don't have that luxury," he explains. Families might also view such a request from a physician as a conflict of interest. He emphasizes that timing, sensitivity, and collaboration are all equally important to the consent process.

Spreading the Gospel

Nearly two years after her liver transplant, Jean Renfro of Mountain City gives thumbs-up to the "Live & Then Give" campaign. "I would think that physicians would realize what a wonderful gift that is that they could give. That not only helps others, but part of them lives on, and I don't understand why anybody would not want to do that, especially people in the health field."

The 66-year-old wife and mother literally preaches the gospel of organ donation and transplantation, organizing "Donor Days" at local churches and speaking to the religious community about her experience. Renfro says becoming an organ donor fits in with Christ's call to help others. "The Lord is pleased with this," she says with conviction.

Renfro says the experience changed her life, both physically and spiritually. Suffering from cirrhosis of the liver since 1986, Renfro had a liver left severely damaged after a bout with pneumonia in 1997; after several attempts to keep the disease at bay, transplantation became the only option. In June 1998, after just three months and five days on the waiting list, she had the transplant at Vanderbilt University Medical Center. Her donor was an unknown 14-year-old girl. Now healthy and grateful, Renfro says everyone should appreciate life the way she does, though without having to go through



Jean Renfro, transplant recipient, with Dr. Pinson

such a horrific experience, of course. And she encourages those around her to become donors. "Some people say, 'Well, I'm too sick, they don't want any part of me,' or 'I'm too old, there's nothing left that's good,' but they can use all kinds of things ... skin, cornea, and veins ... so even though you've got a bad heart or you're a diabetic and your pancreas are not any good, there's something they can use."

Need Outweighs Supply

The physician who performed Renfro's transplant is Dr. C. Wright

Pinson, director of the Transplant Center at Vanderbilt and president of the Tennessee Transplant Society. He too encourages the TMA's organ donation and awareness campaign among fellow physicians, believing it will spill over into the general population. The good news, he says, is that transplants are a huge success for all kinds of patients: "Survival rates are 85% to 90% for all of the solid organ transplants. I just gave a paper that demonstrates that the quality of life for these patients is normal or near normal within a year of transplant any way you measure it," Pinson says. "When you compare it to many other disease states—heart failure, arthritis, cancer or whatever, and look at survival and quality of life, no matter what the treatment is, there's nowhere near the success we've had with transplantation."

The bad news, according to Pinson, is the incredible disparity between the need for organs and the supply. In 1998, 20,961 organ transplants were performed in the United States, but 5,171 patients died while waiting for a transplant. As of March 6, 2000, there were 68,220 people on the national waiting list. In Tennessee, 410 patients had transplantations in 1998, and 92 died while waiting for the life-saving opera-

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Tennessee Donor Services 7015 Middlebrook Pike Knoxville, TN 37909 (865) 588-1031 Tennessee Donor Services 651 E. Fourth St., Suite 402 Chattanooga, TN 37403 (423) 756-5736

Mountain Region Donor Svcs 110 KLM Drive, Suite 1 Gray, TN 37615 (423) 915-0808 1-888-562-3774

Related Web sites

Coalition on Donation - www.shareyourlife.org United Network for Organ Sharing (UNOS) - www.unos.org National Kidney Foundation - www.kidney.org tion. As of March 6, 2000, there were 1,302 Tennesseans awaiting a transplant. "Here you've got something that works but we have a limited supply," Pinson comments grimly. "What do I think about somebody trying to get out and work on that problem? I think that's pretty good news."

On the bright side, Pinson says medical technology and the existence of multiple organ donors allows the best and most efficient use of the organs available. "Each donor is now supplying more organs than in the past; there is increasing emphasis on splitting livers so you can put them into two patients; new technologies are coming that are going to make more out of what we've got, and of course, living related and living unrelated donors are becoming another solution these days." But he adds that does not change the fact that only one out of three eligible donors is utilized.

Attitudes are Changing

That disparity does not have to exist, according to Cochran. A survey commissioned by the TDS found that while 42% of Tennesseans are committed organ donors, 81% of those responding claimed a positive personal attitude toward organ donation and 80% said they would want their organs harvested after they were declared dead. The "Community Attitude and Awareness Donor Study" also found that while prospective donors were more likely to donate a loved one's organs even though it had not been discussed (57% of donors compared with 29% of non-donors), consent rates jump significantly if the loved one has signed a donor card (97% of donors and 92% of non-donors).

Cochran says he believes the missing ingredient, the bridge that will span the gap between need and supply, is a single, cohesive message by all of the groups concerned with organ donation—transplant centers, organ procurement agencies, eye banks, tissue banks, professional groups like TMA and the Tennessee Hospital Association (THA), as well as civic organizations. "Right now, none of us collaborate," he says. "I'd like to see us to get together and develop one program, so that whether you're in Mountain City or Memphis you hear the same message constantly, when people go into a hospital, a physician's office, or even the mall. I think the time is right for coalescence among these parties who have the same interest at heart to sit down and say, 'We're going to develop one campaign.' "Cochran vows to follow through on that idea in the next several months.

Sign Up and Follow Through

Until such a campaign can be organized and launched, officials on all sides say existing awareness efforts must continue to hammer home the most important message: Sign that donor card, and tell your family about your wishes. "You have to let someone know you did it," says Miller. "If you signed your driver's license (donor agreement) and put it in

STATISTICS ABOUT ORGAN DONATION

- · 68,220 people in the U.S. on the waiting list as of March 2000
- 1,302 Tennesseans on the waiting list as of March 2000
- Over 1,000 people added to the national waiting list each month a new name every 15 minutes
- · 20,961 organ transplants were performed in the U.S. in 1998
- 410 organ transplants were performed in Tennessee in 1998
- · Tennessee had 132 organ donors in 1998; 148 donors in 1999
- · 14 people die every day waiting for a life-saving organ transplant
- In 1998, 5,171 patients in the U.S. died while waiting
- In 1998, 92 Tennesseans died while waiting

your wallet and you never tell your spouse, that doesn't help." And do it now, says Pinson. "People need to be thinking about this as a worthy event. If you get asked to consider donation at the time of a death, there are so many overwhelming things happening at that time that it's not unusual for people to not respond positively. On the other hand, if you have contemplated all this in advance and it happens, it's easier for you to say, 'I remember what we said about this.' Think about it and talk to your family before it's an issue."

Cochran also wants to clear up some misconceptions about donor cards. "A signed donor card is all the permission you need to donate in Tennessee," he stresses. "A law was signed two years ago that said that's all you need, and no one can revoke that decision but you."

Leaving a Legacy

End-of-life decisions are never easy or comfortable to make. Liver recipient Renfro says she has manned donor booths at her local WalMart and her church in Mountain City, and is always surprised at the range of reaction. "People say, 'Ooh, I don't want to talk about it' or they turn their head and make a face . . . then there are some who sign up because they see what is has done for me. They knew they didn't have to take those organs with them, but they never knew anybody that really needed them."

Pinson says that's why campaigns like "Live & Then Give" are so important. "It needs to be brought up to your level of consciousness. True change requires significant consideration, on multiple occasions, before change happens—people make a decision to make a change about 12 to 15 times before they actually make the change."

One way to encourage people, including physicians, to make the change is to communicate the worthiness of organ donation. "We're focusing on our members, because they need to understand more about organ donation and what a positive impact it has on our society," says Miller.

Fleming agrees: "A common point of self-reflection is whether we have truly accomplished anything worthwhile during our lifetime. One way to ensure that we leave a lasting legacy that could help save other people's lives is to become an organ and tissue donor."

From Research to Policy: UT Center Seeks To Make a Difference

Leigh Ann Roman

Doctors can make a difference in health policy, and a new institute at the University of Tennessee Health Science Center is setting out to do just that.

The UT Center for Health Services Research, with a budget of about \$200,000 in hand, is preparing to tackle the tough problems of health care, says center director Dr. David Mirvis. "The health care problems that are simple have already been solved.

What's left are the tough ones," he says.

The center, which has a staff of six in addition to about 75 professional associates, will seek to focus attention on health care policy issues both within and outside the university. As it grows, the center will collaborate with the university's Knoxville campus, as well. Internally, the center will promote education and research on the health care system for students and faculty in the areas of finance, delivery, reform and access, among others. Externally, the center will become a one-stop shop for health care research and information for legislators, policy makers, and planners, says Mirvis, a professor in the department of preventive medicine at UT.

Too often, those making health care decisions don't realize that outside influences are major factors in health care delivery, Mirvis says. "You can build the best clinic in the city, but if the bus stop is four blocks away, people aren't going to come," he says. "There are issues of urban planning that get in there, and a lot of things that people don't consider part of health care." TennCare and managed care have opened physicians' eyes to the complexity of health

"I think people who do this kind of research do it because they want to make a change and they want to make a difference.... The reality is the best way to make a difference is dealing with the political system."

Dr. David Mirvis Center Director care delivery, he says, and "What TennCare and the managed care system have done is raise the visibility and priority of all of these kinds of issues."

The center will integrate the expertise of all those concerned with health care, from the dentist to the economist to the ethicist, to enable policy makers to be better decision makers, and it will synthesize information to help practicing physicians

become more informed members of the health care system. The center is the only one of its kind in the state. Vanderbilt University's Health Policy Center in the Law School's Institute for Public Policy Studies examines health policy from a legal and regulatory angle. The center will use a quarterly newsletter and issue briefs, and a Web site to communicate with all parties involved in health care, from hospital administrators to physicians, Mirvis says. His column in *Tennessee Medicine* will also be an avenue to communicate with doctors about the new center. "If there are things TMA members want us to talk about, write about or do, we would love to do that," he says, and adds that the center would be willing to help the TMA gather information by putting together a half-day or daylong panel to explore a specific issue from all sides.

TMA Immediate Past-President Dr. J. Chris Fleming says, "I welcome people, and physicians especially, being more informed about health care policy instead of just reacting to issues that come up. Helping to plan for issues, and understanding why they occur and which way we should help correct them, is very important to the physician community." Fleming also applauds one of the center's goals: the integration of health policy and history into the medical school curriculum.

Indeed, the center already has submitted a proposal for an

Leigh Ann Roman is a freelance writer based in West Tennessee.

expanded curriculum at the medical school, which would integrate health systems issues into the four-year program, Mirvis says. He wants to keep the center on the radar screen of legislators through personal contact and he already has met with several to inform them of the center's services. He also plans to keep the center relevant by staying in touch with its advisory group.

Dr. Fredia Wadley, commissioner of the Tennessee Department of Health, says the center can benefit both practicing physicians and policy makers. "This is an era when private physicians as well as entities in the private health industry are asking for more information on what is happening in the health delivery system," she says, adding that "part of the reason that the health industry is now so interested is because of the impact of managed care. It is no longer true that "if you build it they will come." In today's competitive market, one has to know that there is a need and there is likely to be good utilization of a service before dollars are allocated to invest in the development of the service." The center also can provide the vital function of

ADVISORY GROUP MEMBERS

Dr. Fredia Wadley, Commissioner of the Tennessee Department of Health;

Nancy Lawhead, Assistant to Shelby County Mayor Jim Rout on health policy;

Dick Gourley, Dean of the UT College of Pharmacy; **Yvonne Madlock**, Director of the Shelby County Health Department;

Cheryl Stegbauer, Associate Professor for the UT College of Nursing;

Odell Horton Jr., Associate General counsel and Vice Chancellor for university relations at UT.

Web site: http://www.utmem.edu/center

e-mail: dmirvis@utmem.edu telephone: (901) 448-5826 assessment of public health, she says.

Although still in development, the center is considering research activity in the arenas of TennCare, expanded children's health insurance, and the integrated delivery system of public health in Shelby County, Mirvis says, and he is now seeking funding for an annual symposium that would focus on a health issue of importance to Tennessee. The goal is for working groups to develop as offshoots of the conference. These groups would then develop and pursue agendas for change, he says.



"The health care problems that are simple have already been solved. What's left are the tough ones."

Dr. David Mirvis Center Director

"I think people who do this kind of research do it because they want to make a change and they want to make a difference," he says. "The reality is that the best way to make a difference is dealing with the political system," citing Massachusetts as an example where a group of physicians collected 100,000 names on a petition to put a referendum item on the state's November ballot. The item would require the state to develop a plan for universal coverage within a certain time frame, to include a strong patient's bill of rights and end further conversion of not-for-profit health care entities to for-profit businesses. "Those are the kinds of things that academics can get done that really make a difference," he says.

The center will show that physicians can be effective change agents within the health care system, he says. "I think we need to know more about what is going on and not just deal with it in our day-to-day practice. We can be agents of effective change and change the health care system to meet the new demands and new needs the way we want to. It takes effort, education, an awareness of the real issues, and some serious self-evaluation of us as a profession."

Loss Prevention Case of the Month

Confusion in the Ranks

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 56-year-old woman with mature onset diabetes went to her primary care physician complaining of increasing chest pain on exertion which had become persistent even when she was lying down. She had been seen previously for coronary artery disease, and cardiac catheterization had shown significant disease in the right coronary artery, for which she had two failed attempts at angioplasty. The diagnosis was unstable angina despite a stable EKG and cardiac enzymes that were not elevated. She was scheduled for a one-vessel bypass a week hence. She came to the emergency department the next day for severe anginal pain. Though there was no change in the clinical picture, because of the persistent, severe chest pain she was scheduled for the surgical intervention the following morning.

The admission data were not remarkable, and her vital signs were normal, with a blood pressure of 126/87 mm Hg. The chest x-ray was reported as "normal." A thorough informed consent discussion was held with the patient, and she signed the consent form affirming that she understood the risks and benefits of the procedure. She was taken to surgery where a single-vessel bypass graft was done using an autogenous saphenous vein to the posterior descending branch of the right coronary artery. The surgeon made the comment in the operative note that the degree of disease in this vessel was more extensive than indicated on the cath-

eterization study. The operation lasted about three hours and she was in stable condition when she was sent to the recovery area.

She remained stable throughout the night after surgery, and was extubated by the operating surgeon the morning after the operation. About 24 hours after surgery she became lethargic and hypotensive, with a blood pressure of 78/48 mm Hg. At about this time, the surgeon's office called the nurses' station and informed them that he would be out of town and that his associate would be looking after his patient. With an increase of the intravenous fluids, vasopressors, and oxygen, the patient stabilized within the hour and seemed to be doing well. She had another episode of hypotension which again responded to an increase in the vasopressors. At this point a Swan-Ganz catheter, which had been removed at the time of the extubation, was replaced without difficulty. The oxygen saturation was in the low 90s for a brief period of time during the hypotensive episode. The hemoglobin was recorded as 8.1 mg/dl and the hematocrit 24.1%. The hemoglobin was 11 mg/dl and the hematocrit was 33% during the first few hours after surgery.

It is noted that the covering physician did not come to the bedside on either of these occasions where the hypotension was experienced. After the nurses had called him and described the status of the patient, he gave appropriate orders for the situation described. The hemoglobin was reported at 6.6 mg/dl and the hematocrit at 19.5% after this episode of hypotension. When the covering physician made rounds the following morning, his progress note recorded an increase of mediastinal tube drainage and stated that the patient was "stable" at that time, which was 24 hours after the operation. A chest x-ray showed a small pneumothorax that was unchanged from eight hours before. An order was written by the covering surgeon for the unit nurses to follow the hematocrit, wean the patient from the vasopressors, and, if the patient continued to be stable, remove the mediastinal tubes, the Swan-Ganz, the Foley, and the arterial line. During that visit, the covering surgeon noted that the hematocrit had improved slightly and that transfusions were to be withheld unless the patient again experienced a hypotensive episode.

Two hours later, about 48 hours after surgery, the patient being stable from a cardiopulmonary perspective, the medi-

astinal tubes were removed according to the order. Profuse bleeding occurred immediately, the patient coughed, sending blood across the room onto the wall, and the blood pressure immediately fell from about 120/90 mm Hg to a systolic of 0. The patient was immediately "bagged" with 100% oxygen, and external cardiac message was started. There being no orders on the chart as to the covering surgeon, the unit clerk called for the wrong doctor, and it took nearly 30 minutes for the covering surgeon to get the call and get to the bedside. The patient was taken immediately to the operating room, the chest was opened, and internal cardiac message was begun. There was "obvious" tamponade in both the pericardium and the area behind the heart, which were filled with blood clots. The surgeon observed that "the heart was virtually empty." On exploration of the operative site, a 1.4mm hole in the vein graft was discovered and repaired. Vasopressors, bicarbonate, and blood were given. After a time the blood pressure was 140 systolic and the pH 7. The note written by the covering surgeon who did the exploration and repair stated that prognosis was guarded because of the prolonged resuscitation.

For the next 24 hours the patient remained stable and appeared to by neurologically intact, but when her primary care physician visited her 24 hours later, he recorded, "She knows that I am her doctor but she doesn't know my name." Over the course of the next few days it became apparent that the patient had suffered a significant loss of cognitive function. She spent about a week in the rehabilitation center with minimal results, and was discharged home three weeks after the initial surgery.

The operating surgeon and his nurse who removed the mediastinal tubes were sued charging negligence in allowing the nurse to harvest the veins for grafting, failure to detect the hole in the graft, and failure to appropriately monitor the patient. During the trial the judge would not allow any facts to be brought out questioning the actions of the covering physician, since he was not a party to the lawsuit, and the operating surgeon would not allow his partner to be brought into the legal action.

Loss Prevention Comments

The defense of the operating surgeon was significantly hampered by the ruling of the trial judge not to allow the introduction of any of the facts relating to the action or inaction of the covering surgeon to be introduced into evidence. While it is commendable that the partner would not allow another partner to be brought in, it is also evident that without the complete record, the liability could not be appropriately placed.

Is it a breech of the standard of care to allow a trained nurse to harvest veins for a grafting procedure? Of course not! The nurses or physicians assistants who are credentialed to do this procedure by the hospitals in which they work have been trained and appropriately certified to do it. There was some culpability on the part of the nursing staff in that there was no progress note on the chart or order that notified them regarding the coverage situation. It is apparent in the nursing notes that the operating surgeon did come by the unit and verbally inform them of the coverage, but somehow this word was not passed along to the entire unit staff. That was thought to be a significant factor in the delay (approximately 30 minutes) in getting the covering surgeon back to the hospital to attend to the patient. This delay could have resulted in the cognitive damage, as indicated in the progress note of the covering surgeon.

Was it within the standard for an *oral* order by the operating surgeon regarding the coverage situation to be given? I believe it was. Would it have been better for the surgeon to have *written* the order on the chart in the accustomed place? Yes! It might have reduced the time required for the covering surgeon to get back to the hospital, and could have reduced the damage to the patient.

Was it a deviation from an acceptable standard for the trained nurse to remove the mediastinal tubes? No! Again, this is not outside the customary standard of care.

Was it evidence of malpractice for this kind of bleeding to occur from the vein graft? No! This does happen, and is considered to be one of the many hazards of this highly technical surgery. Many times a shift of tubes, drains, and wires can damage the graft during their removal.

Where were the standards not met? It is probably reasonable to have someone, an anesthesiologist or cardiac surgeon, in house at all times in hospitals where cardiac surgery is done. When mediastinal tubes are removed or other events occur that require an immediate response, the availability of qualified people is essential to the appropriate management of this kind of emergency. This patient's postoperative course had not been altogether smooth. She had two distinct episodes of hypotension in the first 24 hours after the surgery. Her hematocrit had fallen more than usual during the 48 hours after the operation. She was a diabetic, and it is known that diabetics do not fare as well as non-diabetics in this kind of situation. This lack of coverage in house may well be a deviation from an acceptable standard of care on the part of the institution. But, in this case, the institution was not sued.

It may be that if the covering surgeon had been a party to the lawsuit, defense of both surgeons might have been easier, and the damages mitigated to some extent. It is certain that justice is more likely to occur when all the facts are known. In this legal environment of medical malpractice, however, it probably made no difference as to the amount of settlement. Somebody had to pay! A large six-figure settlement was negotiated before trial, and charged equally to the operating surgeon and his nurse.

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A Rational Approach to the Management of Carpal Tunnel Syndrome in the Workplace

David S. Martin, MD

Is Carpal Tunnel Syndrome Work-Related?

The etiology of most cases of carpal tunnel syndrome (CTS) is either idiopathic or at least multifactorial. Medical

conditions that predispose to the development of CTS include diabetes mellitus, thyroid disease, pregnancy, vitamin B, deficiency, lupus, anomalous wrist musculature, and rheumatoid arthritis.2 It is believed that the pathophysiology in CTS usually involves thickening of the synovial tissue surrounding tendons that pass with the median nerve through the carpal tunnel, which leads to increased pressure on the median nerve.3 Because "tendinitis" is generally thought to be due to "overuse," CTS is frequently attributed to excessive upper extremity use at work, but recreational and

other non-work activities undoubtedly play a role in its development. Evidence regarding the contribution of work activities to the development of CTS and other "repetitive strain injuries" is inconclusive. ^{4,5} Increased rates of CTS have been documented in highly repetitive, high-intensity job duties, but extrapolation to less vigorous duties, such as keyboard use, has not been rigorously substantiated. ⁷ To complicate matters further, current Tennessee Workers' Compensation law provides hazy guidelines for physicians wrestling with issues of causation and work-relatedness. Many Tennessee

companies have opted to accept CTS as work-related *de facto*, believing that Tennessee courts will tend to render decisions in favor of employees when the etiology of their conditions

is uncertain.

Currently, if a patient indicates that work activities exacerbate the condition (i.e., make symptoms more pronounced) in the absence of other major contributing factors such as diabetes mellitus, CTS is generally thought to be work-related for the purposes of medical treatment based on the wording and common interpretation of Tennessee Workers' Compensation regulations. In actuality, the responsibility for the development of occupationally related disorders should be attributed to a combination of worker (intrinsic) and workplace/other (ex-

trinsic) factors. The patient with long-standing diabetes, who develops CTS a few weeks after beginning a sedentary job, probably would not fall under the umbrella of Workers' Compensation because the patient's underlying medical condition is the main causative factor leading to the onset of disease. Conversely, CTS experienced by a jackhammer operator after years of intense labor in the absence of other medical conditions would likely be attributed exclusively to work activities. While proper medical treatment should always be assured, future legislative developments should focus heavily on viewing the responsibility for CTS as one shared by the employer and the employee, with careful weighing of each patient's individual circumstances.

ABSTRACT

Carpal tunnel syndrome (CTS) occurring in the working population continues to be a frequent cause of unpleasant patient symptoms, loss of worker productivity, and substantial expense to employers. The cause of CTS in these patients is often unknown, but is frequently attributed to work activities. Current scientific literature suggests that CTS is usually a multifactorial process, with both patient and environmental contributors that should be considered in determining work-relatedness. Outcome following carpal tunnel surgery is dependent on a positive patient attitude, physician encouragement, and employer cooperation. Determinations of permanent impairment and work restrictions should be made by physicians experienced in caring for upper extremity conditions, and should be based on objective evidence of anatomic dysfunction. Legislative efforts regarding Workers' Compensation law should be undertaken to encourage patients towards a faster and morecomplete recovery.

Reprint requests to Murfreesboro Medical Clinic & Surgicenter, 1004 N. Highland Ave., Murfreesboro, TN 37130 (Dr. Martin)

Treatment

Standard treatment of CTS may include use of wrist splints, anti-inflammatory medications, local steroid injections, vitamin B_c, alteration in awkward upper extremity posture and usage patterns, and surgery.9 Initial success with ultrasound and iontophoresis (transdermal administration of steroid preparations using an external electrical field) is also promising.10 All treatment modalities should be utilized with the intent of restoring full, vigorous, safe, and comfortable use of both hands in whatever occupational and recreational activities are appropriate and enjoyable for each individual patient. Wrist splints are prescribed for nighttime use only, and should maintain the wrist in a neutral (straight) position, the wrist position coinciding with the lowest pressure measurements within the carpal canal.11 Continuous long-standing splint use can lead to permanent wrist stiffness and other unwanted physical and psychological sequelae.12 Anti-inflammatory medications have variable effectiveness, depending upon the severity and duration of the person's symptoms. Patients should be forewarned about possible gastrointestinal side effects; these medications should be avoided in patients with any prior history of gastritis or peptic ulcer disease. The utility of vitamin B₄ (pyridoxine) administration in healthy patients without underlying vitamin deficiencies is not well established and remains controversial.13 Local steroid medications injected into the carpal tunnel can provide transient relief and may be useful as a diagnostic measure when the etiology of the patient's symptoms are unclear.¹⁴ They are often used in pregnancy as a temporizing measure until the pregnancy is completed or when symptoms are mild and of short duration. Only those physicians with thorough knowledge of wrist anatomy should perform these injections, as inadvertent injection directly into the median nerve can be devastating.

In patients whose symptoms of CTS remain sufficiently problematic despite conservative measures, and those patients whose CTS is determined to be sufficiently severe based on clinical and nerve conduction evidence that conservative measures are likely to be futile, may wish to consider surgery. Surgery releases the transverse carpal ligament, which forms the roof of the carpal tunnel, thereby reducing the pressure on the median nerve. Carpal tunnel surgery has afforded excellent symptom relief and good functional results even in Workers' Compensation recipients. 15

Favorable Outcome in Working Patients

Satisfactory results following carpal tunnel surgery are predicated on several concepts:

(1) Assurance of the correct diagnosis. Systemic medical conditions leading to peripheral neuropathy, ulnar nerve compression at the elbow (cubital tunnel syndrome), median nerve compression in the forearm (pronator syndrome), cervical

radiculopathy, thoracic outlet syndrome, and other conditions can be confused with CTS or coexist with it.¹⁶

- (2) Careful and complete explanation to the patient of the rationale for surgery, its limitations, and potential complications. Approximately 95% of patients make the decision to proceed with surgery themselves, based upon an intolerable level of symptoms, the other 5% on being advised to have surgery based on having very severe changes on physical examination or nerve conduction studies.
- (3) Emphasis that outcome following surgery will be dependent upon a positive and cooperative attitude on the part of the patient.
- (4) Early return to the workplace is crucial and helps patients maintain habits of work responsibility that may falter if the patient is off work for an extended period of time. Even if the patient is not fully "productive," additional costs incurred by the employer are offset by a patient who will be more prepared psychologically to resume work activities when medically appropriate.
- (5) Gradual increase in activity using the operated hand, typically resuming "normal" activities approximately four to eight weeks following surgery. Patients should be advised that despite being capable of their usual activities at that time, they will probably continue to experience some incisional discomfort and diminished grip strength for several months following surgery.¹⁷
- (6) Early initiation of desensitization efforts and range of motion exercises to reduce tenderness and stiffness, respectively. Patients are instructed to massage the peri-incisional area and are to regain full finger and wrist motion within two weeks of surgery. Those patients who struggle to do so should be referred to a competent hand therapist for assistance. Silicone gel sheeting and use of padded gloves may assist in reducing tender scar formation.

Impairment and Work Restrictions

The physician's determination of permanent impairment and assignment of work restrictions can have profound implications for the patient and the patient's employer. Most measures of impairment are based upon the AMA's Guides to the Evaluation of Permanent Impairment, currently in its fourth edition.¹⁸ This text attempts to provide an objective measure of impairment following injury or illness. It is crucial to understand that in order to be accurate, the physician must evaluate the patient noting any residual complaints and the objective measurements of motion and sensation. He then renders an impairment rating that is based on the permanent anatomic dysfunction the patient is expected to incur. Patients who have not had the full range of standard medical treatment, both surgical and nonsurgical, should not be considered to have a permanent impairment. Furthermore, awarding impairment based solely on subjective complaints of pain

are discouraged due to their dependence on patient motivation and examiner interpretation. Typically, when the physician has concluded care for the patient's CTS, he will arrive at an impairment determination based upon the patient's expected long-term (i.e., permanent) functional loss attributable to that condition and subsequent treatment. Awarding impairment based solely on the patient's having had surgery or other treatment, without consideration of the functional utility of the hand, is inappropriate. In the future, judges should be encouraged to award settlements that accurately reflect both the actual contribution of workplace factors and the expected long-term consequences of the injury or illness. Ideally, the system for awarding compensation following carpal tunnel surgery should tend to encourage patients to participate fully in the rehabilitation process, reward early return to work, and promote a good functional result.

Permanent work restrictions are intended to prevent further injury or damage to a patient who is susceptible. While some types of conditions, such as lumbar back injuries, may be prone to repeated injury with resumption of pre-injury work activities, CTS is not likely to recur following surgical decompression. Alteration of work activities can certainly be tried in efforts to avoid surgery in the initial phase of treatment, but permanent restrictions following surgery should not be utilized injudiciously for prevention of peri-incisional pain when scar discomfort or diminished grip strength is expected to diminish significantly or even resolve completely. While it is recognized that some working patients may experience occasional symptoms with vigorous use of their hands with resumption of work activities, 19 these transient symptoms are unlikely to follow the pattern of symptom progression experienced in patients who have not had surgery. Patients who have undergone a complete decompression of the median nerve at the carpal tunnel and continue to have numbness and tingling should be carefully evaluated for other explanations, as further efforts at carpal tunnel decompression are likely to be unrewarding.20 For motivated patients/employees who struggle in performing certain work duties, we encourage the employer to compromise with the employee by accommodating placement in a "regular" work duty position that can be performed safely and enjoyably for the patient.

Conclusion

Issues related to CTS in the workplace continue to be contentious. For individual patients, the employer and physician should cooperate to ensure optimal care of the condition and gentle return to normal activities as recuperation ensues. Physicians also have a role in caring for the working population globally by assimilating the available medical/scientific literature and making it palatable to patients, the nonmedical community, and the state and federal legislature, where decisions regarding Workers' Compensation regulations are made.

References

- 1. Lewis DS, Catkins ER, Harris PG⁻ Carpal tunnel syndrome in the workplace. *Hand Clin* 12:305-308, 1996.
- 2. Kerwin G, Williams CS, Seiler JG: The pathophysiology of carpal tunnel syndrome. Hand Clin 12:243-251, 1996.
- Kerr CD, Sybert DR, Albarracin NS: An analysis of the flexor synovium in idiopathic carpal tunnel syndrome: report of 625 cases. J Hand Surg 17A:1028-1030, 1992.
- Nathan PA, Keniston RC, Myers LD, et al: Longitudinal study of median nerve conduction in industry: relationship to age, gender, hand dominance, occupational hand use, and clinical diagnosis. J Hand Surg 17A:850-857, 1992
- 5. Vender M1, Kasdan ML, Truppa KL: Upper extremity disorders: a literature review to determine work-relatedness. *J Hand Surg* 20A:534-541, 1995.
- Silverstein, BA, Fine LJ, Armstrong TJ: Occupational factors and carpal tunnel syndrome. Am J Ind Med 11:343-358, 1987.
 - 7. Wolens D Invited epidemiologic comment. Hand Clin 12:308-311, 1996. 8. Szabo RM. Occupational carpal tunnel syndrome in Kasdan MD (ed). Occupational Hand &
- 8 Szabo RM. Occupational carpal tunnel syndrome in Kasdan MD (ed): Occupational Hand-Upper Extremity Injuries and Diseases. Philadelphia, Hanley and Belfus, Inc, 1998, pp 113-127.
- Kulick MI, Gordillo G, Javidi T, et al: Long-term analysis of patients having surgical treatment for carpal tunnel syndrome. J Hand Snrg 11A:59-66, 1986.
- Banta CA. A prospective, nonrandomized study of iontophoresis, wrist splinting, and antiinflammatory medication in the treatment of early-mild carpal tunnel syndrome. J Occup Med 36:166-168, 1994.
- 11. Gelberman RH, Hergenroeder PT, Hargen HR, et al: The carpal tunnel syndrome: a study of carpal tunnel pressures. *J Bone Joint Surg* 63A:380-383, 1981.
- 12. Rempel DM, Harrison RJ, Barnhart S: Work-related cumulative trauma disorders of the upper extremity. *JAMA* 267:838-842, 1992.
- 13. Jacobson MD, Plancher KD, Kleinman WB. Vitamin B_e (pyridoxine) therapy for carpal tunnel syndrome. *Hand Clin* 12:253-257, 1996.
- Green DP Diagnostic and therapeutic value of carpal tunnel injection. J Hand Surg 9A:850-854, 1984.
- 15. Katz JN, Keller RB, Simmons BP, et al: Maine carpal tunnel study: outcomes of operative and nonoperative therapy for carpal tunnel syndrome in a community-based cohort. *J Hand Surg* 23A:697-710, 1998.
- 16. Dawson D. Entrapment neuropathies of the upper extremities. N Engl J Med 329:2013-2018, 1993.
- Shurr DG, Blair WF, Bassett G: Electromyographic changes after carpal tunnel release. J Hand Surg 11A:876-880, 1986.
 Doege TC (ed): Guides to the Evaluation of Permanent Impairment, ed 4. Chicago, Ameri-
- can Medical Association, 1993.

 19. Higgs PE, Edwards D, Martin DS, et al: Carpal tunnel outcome in workers: effect of work-
- ers' compensation status. J Hand Surg 20A:354-360, 1995. 20. O'Malley MJ, Evanoff M, Terrono AL, et al: Factors the determine reexploration treatment of carpal tunnel syndrome. J Hand Surg 17A:638-641, 1992.

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Original Contribution

An Uncommon Case of Green Urine

Mahendra Kumar Joshi, MD

Introduction

The color of normal urine depends on urochrome pigment concentration and is clear, pale to dark yellow, and amber. Deviation from normal color is common, and can easily alarm a patient, prompting medical consultation. Green urine is uncommon and is mostly related to medications and dyes. The use of over-the-counter medications is increasing, and this will lead to increasing numbers of such encounters. Identification of the unusual causes of green urine can lead to the correct diagnosis and treatment.

Case Report

A 47-year-old white man came to the emergency room with a one-week history of distension of the abdomen and weight gain of 15 lb in the last two weeks. He also reported some dysuria and dribbling of urine and that he had not been able to pass enough urine, as the "diuretics" were not helping and his urine had turned green.

His medical history was significant for hepatitis-B, peptic ulcers, chronic obstructive airways disease, type 2 diabetes mellitus, hypertension, posttraumatic stress disorder, depression, and spinal meningitis. Family history was significant for alcohol-induced cirrhosis of the liver in his father.

He denied any drug allergies. Social and personal history included a long history of heavy alcohol abuse, although he said he was not drinking for the past three months. He also reported a previous history of intravenous drug abuse with cocaine and speed and a 30-pack-year history of cigarette smoking. His current medications included Glucotrol, trazodone, and blood pressure medication.

His physical examination revealed 1+ pedal edema, blood pressure 150/94 mm Hg, multiple telangiectases on the anterior chest wall, temporal muscle wasting, and shifting dullness in the abdomen without any palpable organomegaly or rebound tenderness. He had difficulty in passing urine, and when a Foley catheter was inserted it drained green-colored urine.

Laboratory tests showed normochromic normocytic anemia, thrombocytopenia, raised INR at 1.5, low BUN, hypokalemia, hypomagnesemia, hypoglycemia (glucose 44 mmol/L),

abnormal liver function tests with alkaline phosphatase 160 U/L, ALT 41 U/L, AST 66 U/L, total bilirubin 1.2 mg/dl (normal 0.0 to 1.2), direct bilirubin 0.3 mg/dl (normal 0.0 to 0.2), gamma glutaryl transferase 38 U/L (normal 18 to 78).

Urinalysis was reported as green, trace of occult blood and protein, urobilinogen 1.0, bilirubin negative, pH 6.0, specific gravity 1.025. Urine microscopy showed WBCs 0-1, RBCs 15-20, no casts. Urine and blood culture showed no growth. Peritoneal fluid was also sterile, with low albumin gradient suggestive of transudate.

In view of abnormal urine color and previous history of drug abuse, a comprehensive drug screen was done. It was reported positive for nicotine metabolites, caffeine, lidocaine, salicylate, guaifenesin, naproxen, naproxen metabolite, chlorpheniramine, and dextromethorphan. Serum drug screen was negative for ethanol, methanol, isopropanol and acetone, and ethylene glycol amphetamine, barbiturate, benzodiazepine, or tricyclics. Salicylate was present in low concentration of 1.1 mg/dl (therapeutic blood levels 10 to 20 mg/dl).

He was treated for cirrhosis of the liver-induced anasarca with furosemide, salt restriction, multivitamins, and supportive treatment. His urine cleared to normal color within 24 hours of his admission. The second sample collected after 24 hours was of normal color.

The cause of his green urine remained elusive until a detailed history of medications was obtained. He admitted taking several tablets of Diurex in increasing doses over the last several days in order to achieve diuresis and to reduce bloating, edema, and weight gain. The discoloration of urine proved to be his over-the-counter diuretic, Diurex. An insert of this medication warns of blue-green urine as one of its side effects.

Discussion

Discoloration of the urine is a common and often neglected clinical sign. Red discoloration due to hematuria is the most common abnormality. Urine can be discolored by various intrinsic or extrinsic factors,¹ though green discoloration is uncommon. Also called verdoglobinuria,² various causes have been described (Table 1).³⁻⁸

This patient admitted having used an over-the-counter medication, Diurex (Alva-Amco), which is claimed by the manufacturer to relieve excess body water and relieve men-

TABLE 1

CAUSES OF GREEN URINE3-8

Intrinsic Causes

Biliverdin

Pseudomonas infection - Pyocyanin pigments

Extrinsic Causes

Chlorets - Chlorophyl-containing breath mint

Mouthwash and Deodorant overuse

Dyes, e.g., FD&C blue no.1, Methylene blue, Diagnex, Indigo blue, Evans blue, Toluidine blue, Azuresin, Phenol

Prescription Medications, e.g., Phenyl Salicylate, Amitriptyline, Propofol, Methocarbamol, Triamterene, Lodochlorhydroxyquin, Resorcinol

Over-the-Counter Medications: Diurex

Others: Azuresin, Bromoform, Thymol, Guaiacol (in cough remedies), Magnesium Salicylate

strual discomfort. It is also touted as a weight loss remedy and contains calcium sulfate, dicalcium sulfate, magnesium trisilicate, microcrystalline cellulose, magnesium stearate, potassium salicylate, and stearic acid, in addition to other fillers and coloring and coating agents.

Incidentally, the same name "Diurex" is also used to market a fertilizer Diuron (N'-(3,4-Dichlorophenyl-N,N-dimethylurea)), widely used as a weed killer.9 This highlights the problem of

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unregulated nomenclature of over-the-counter products available to patients who are susceptible to self-treatment and can develop serious side effects and drug interactions.

Over-the-counter drug use is common, and all health care workers must be alert to the possibilities of side effects and drug-drug interactions. 10 Since there are various causes of green urine, and extrinsic causes outnumber the intrinsic causes, a high index of suspicion for over-the-counter medications causing green urine must be maintained. Any presentation with green urine must prompt a detailed history of over-the-counter medications which may not be initially divulged by a patient.

References

- 1. Raymond JR, Yarger WE: Abnormal urine color. Differential diagnosis. South Med J 181:837-841, 1988
- 2. Wang XW, Lu CS, Zhang ZM, et al: Verdoglobinuria phenomenon in severe electric burns. Burns 10(3):188-192, 1983.
- 3. Bowling P, Belliveau RR, Butler TJ: Intravenous medications and green urine. JAMA 246:216,
- 4. Nelson E: Subacute myelo-optico-neuropathy (SMON). Ann Intern Med 77:468-470, 1972.
 5. Seigel AI, et al: The "Chloret sign." N Engl J Med 299:102, 1978.
 7. O'Mears MP: Another "Chloret sign." N Engl J Med 300:202, 1979.
 7. O'Mears MP: Another "Chloret sign." N Engl J Med 300:202, 1979.
 8. Ehrig F, Waller S, Madhuker M, et al: A case of 'green urine.' Nephrol Dial Transplant 14:190-192, 1999.
- 9. Integrated risk information systems at Environmental Protection Agency Website. Diuron (CASRN 330-54-1) http://www.epa.gov
- 10. Holden MD: Over the counter medication. Do you know what your patients are taking? Postgrad Med 91(8):191-194, 1992.



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Original Contribution

Development of Thyroid Follicular Adenoma on Simvastatin Therapy

Elizabeth L.C. McCord, MS, MD; Seema Goenka, MD

Introduction

Since the discovery of HMG-CoA reductase inhibitors as cholesterol lowering agents, more and more agents have been added to this class. These agents (lovastatin, simvastatin, pravastatin, fluvastatin), despite belonging to the same class, still have different pharmacodynamic and pharmacokinetic properties. Frequent adverse effects of these drugs include: dyspepsia, constipation, diarrhea, abdominal pain, headache, myopathy and transient elevation of liver enzyme functions. Thyroid neoplasia as an adverse effect has been reported in rats but not in humans. Our patient developed follicular adenoma with prominent Hurthle cell

changes after being on simvastatin for three months.

Case Report

A 66-year-old white woman came to the office for health maintenance. Her past medical history was pertinent for gastroesophageal reflux, fibromyalgia, osteoporosis, depression, hypercholesterolemia, and multinodular goiter. She was taking ranitidine, alendronate sodium, sertraline hydrochloride, cetirizine hydrochloride, and niacin. Her multinodular goi-

From the Department of Family Medicine, James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Family Medicine Associates, East Tennessee State University, 917 West Walnut Street, Johnson City, TN 37604 (Dr. McCord).

ABSTRACT

HMG-CoA reductase inhibitors (lovastatin, simvastatin, fluvastatin, pravastatin) constitute a potent class of cholesterol-lowering agents, which are increasingly being used these days for primary and secondary prevention of atherosclerotic heart disease. Despite having good overall safety and efficacy profiles, these medications can still cause significant adverse effects including transient elevation of hepatic transaminases, myopathy, and rhabdomyolysis. Preclinical studies have demonstrated a potential of neoplasia in rats. However in clinical trials HMG-CoA reductase inhibitors have not been found to be neoplastic in humans. The dosage used in humans is also significantly lower and therefore it is expected to have a good safety margin. But this may not be entirely true considering the mechanism of neoplastic transformation, which is thought to be different in humans as compared to other species. We report a patient, who developed follicular adenoma with prominent Hurthle cell changes after being on simvastatin for three months but not during one year of pravastatin therapy. In elderly female patients with hyperlipidemia requiring pharmacologic treatment, especially those with a prior history of multinodular goiter, one should consider using an agent which has not been shown to cause thyroid tumors even in animal models. Patients should continue to be followed with frequent periodic thyroid palpation in addition to the usual biochemical monitoring required while on these agents.

ter was treated with radioactive iodine more than 30 years ago, as well as with thyroxine suppressive therapy. Her thyroxine suppression was discontinued many years ago without a subsequent increase in TSH, goiter size, or nodules. Her sister had lung cancer. Her physical examination was in the normal range except for some trigger points consistent with her history of fibromyalgia and a goiter with the right lobe larger than the left but without any palpable nodules. The same medications were continued at this time. Her thyroid tests were all normal but her cholesterol level was found to be very high (>300 mg/dl) and needed pharmacologic therapy.

She was given pravastatin

sodium, titrated to a final dose of 40 mg daily, for her high cholesterol with a good response. After one year of therapy, for financial reasons pravastatin sodium had to be changed to niacin. When her cholesterol level rose, niacin was replaced by simvastatin 20 mg daily. After three months of simvastatin therapy, the patient was noted to have a 2 X 1cm nodule in the right lobe of her thyroid gland. Repeat thyroid function tests at this time were with in normal limits. Ultrasound of the thyroid gland showed a multinodular goiter and a dominant 1.8 X 1.3-cm solid nodule in the right lobe (Fig. 1). Nuclear Iodine 123 thyroid uptake scanning showed this nodule to be cold, and aspiration biopsy revealed follicular epithelium with a predominant Hurthle cell pattern. The cytological findings were considered atypical and surgical consultation was recommended (Fig. 2). Subsequently she had right thyroid lobectomy and isthmusectomy, the



Figure 1. Ultrasound of the thyroid gland showed multinodular goiter and a dominant 1.8 X 1.3 cm solid nodule in the right lobe.

pathology report confirming it to be follicular adenoma with Hurthle cell changes (Fig. 3). Vascular invasion was not seen.

Discussion

Simvastatin is intended for clinical use as an agent for lowering serum cholesterol. The Scandinavian Simvastatin Survival Study showed it to reduce the risk of mortality by reducing coronary heart disease deaths. It also reduces the risk of nonfatal myocardial infarctions and nonfatal cerebrovascular events. Simvastatin is a prodrug that is converted by liver to its active β-hydroxyacid form. This metabolite is a competitive and reversible inhibitor of 3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase that catalyzes the conversion of HMG-CoA to mevalonate—the rate-limiting step in the biosynthesis of cholesterol. 1 By inhibiting hepatic cholesterol biosynthesis at the level of HMG-CoA reductase, this drug produces a compensatory increase in hepatic low-density lipoprotein (LDL) receptors, resulting in an increased uptake of LDL cholesterol from the blood and the subsequent lowering of circulating cholesterol levels.^{2,3}

Follicular adenoma is an encapsulated noninvasive tumor arising from follicular cells and showing follicular differentiation. It is about five times more common in women than men.⁴ The rate of malignancy in thyroid nodules is fortunately very low, representing about 6% of all nodules.^{5,6} The Hurthle cell tumor is a subtype of follicular neoplasm composed predominantly or exclusively of follicular cells exhibiting oxyphilic features due to the presence of abundant granular acidophilic cytoplasm, which represents crowded mitochondria.⁷ The Hurthle cell varient of follicular neoplasm tends to be more aggressive than the microfollicular, macrofollicular, and trabecular subtypes.

The HMG-CoA reductase inhibitors (lovastatin, simvastatin, fluvastatin, pravastatin) have not been found to cause neoplasms in clinical trials in humans, though preclinical studies have demonstrated a potential for neoplasia in animal models. Simvastatin caused hepatocellular tumors and pulmonary adenomas in mice and thyroid follicular adenomas

in rats, whereas pravastatin caused hepatocellular tumors and lymphoma in mice but not thyroid follicular adenomas. Thyroid follicular tumors associated with simvastatin have been thought to be related to an HMG-CoA reductase inhibitor induced increase in the clearance of thyroxine in these species. Treatment of rats with thyroxine has prevented these thyroid tumors, suggesting that these tumors are due to increased stimulation of the thyroid by TSH. In human studies done with fluvastatin, there has been no statistically significant change in TSH levels. TSH levels had been consistently normal in our patient as well.

In a two-year study with rats administered simvastatin at a dose level 125 times the clinical dose, a slight but statistically significant increase in the incidence of thyroid follicular adenomas was observed in female rats only. Male rats had a slight increase in the incidence of focal cystic hyperplasia of thyroid follicles as well, but no follicular adenomas.9 This suggests the presence of a slight trophic effect of simvastatin on the thyroid. The available data suggest that simvastatin increases hepatic functional capacity in rats, thereby increasing thyroxine clearance. Decrease in the serum thyroxine level releases the negative feedback inhibition on the pituitary-hypothalamic-thyroid axis, resulting in increased TSH secretion,9 which leads to statistically significant increase in serum TSH and ultimately to the development of thyroid hypertrophy and neoplasia. Area under the plasma drug concentration versus time curves have been shown to be dramatically higher in female rats than in males receiving comparable doses of simvastatin, indicating a markedly higher systemic exposure of the former to simvastatin.¹¹ Simvastatin is more lipophilic and is extensively metabolized by cytochrome P-450. Mean steady state levels are 40% to 60% higher in the elderly and 20% to 50% higher in women,1 theoretically exposing elderly female patients like ours to a greater risk of adverse effects.

On a milligram basis, simvastatin is at least twice as potent as pravastatin. 12 Some investigators have attempted to

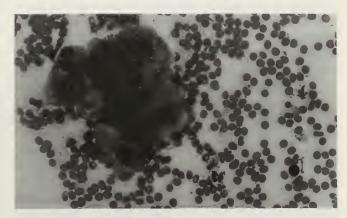


Figure 2. Cluster of follicular epithelial cells showing Hurthle cell metaplasia (Romanousky stain, X 400).

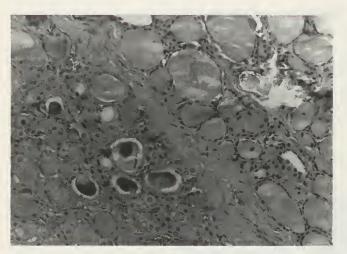


Figure 3. Histologic section demonstrating microfollicles of a follicular adenoma on the left and normal thyroid follicular tissue on the right. A connective tissue capsule divides the adenoma from the surrounding thyroid tissue (H & E stain, X 400).

demonstrate differences in cellular uptake of hydrophilic drug pravastatin, compared with the more lipophilic agent simvastatin. In certain models, pravastatin has been shown to enter nonhepatic cells less readily than simvastatin, and to produce less inhibition of cholesterol biosynthesis (HMG-CoA reductase inhibition) in extrahepatic tissue. 13-18 This could be one explanation as to why thyroidal neoplastic transformation did not occur while our patient was on pravachol, but it did when she was switched to simvastatin. Simvastatin and other HMG-CoA reductase inhibitors decrease plasma levels of ubidecarenone, which has an important role in mitochondrial electron transport and antioxidant activities. However, the clinical significance of reduced serum levels of ubidecarenone is currently not known. 19-23 Inhibition of HMG-CoA reductase also results in decreased synthesis of mevalonic acid, which serves as a precursor not only for biosynthesis of sterol, but also for biosynthesis of dolichols (involved in glycoprotein synthesis), isopentenyl tRNA (involved in DNA translation),24 and other unidentified isoprenoid-containing proteins.²⁵ In the case described, one of the above-mentioned malfunctioning pathways could be the causative factor of neoplastic transformation. Excess thyroxine clearance by liver, as seen in female rats, leading to excess TSH production and subsequent stimulation of thyroid gland, does not seem to be a factor in the case presented, especially in view of consistently normal serum TSH levels.

Conclusion

We report a case of an elderly woman who developed thyroid follicular adenoma with prominent Hurthle cell changes while on simvastatin but not on pravastatin therapy. This class of medications has been shown to cause neoplastic changes in the thyroid gland of female rats. While the comparative dosage used in humans is significantly less, and therefore is expected to have a good safety margin, this may not be entirely true considering that the mechanism of neoplastic transformation is thought to be different in humans than in rats. Elderly female patients are exposed to higher mean steady state levels of simvastatin. If these patients have coexistent history of multinodular goiter or thyroid adenomas, their risks and benefits while on HMG-CoA reductase inhibitors should be evaluated very carefully before starting therapy. Selection of an agent that has not caused thyroid tumors in animal models, or a reduced dosage of these agents, as well as frequent manual palpation and ultrasound evaluation as indicated of the thyroid gland, may be necessary. HMG-CoA reductase inhibitors need to be used with caution despite an excellent overall safety profile.

References

- 1. Plosker GL, McTavish D. Simvastatin. A reappraisal of its pharmacology and therapeutic efficacy in hypercholesterolemia. *Drugs* 50(2):335-363, 1995.

 2. Kovanen PT, Bilheimer DW, Goldstein JL, et al: Regulatory role for hepatic low-density
- lipoprotein receptors in vivo in the dog. Proc Natl Acad Sci USA 78:1194-1198, 1981
- 3. Bilheimer DW, Grundy SM, Brown MS, et al. Mevinolin and colestipol stimulate receptormediated clearance of low-density lipoprotein from plasma in familial hypercholesterolemia heterozygotes. *Proc Nati Acad Sci USA* 80.4124-4128, 1983.
- 4. Franssila KO: Thyroid gland: benign tumors, follicular adenoma, in Kissane JM (ed): Anderson Pathology. St. Louis, CV Mosby Co, 1989, pp 1544-1569.
- 5. Werk EE, Vernon BM, Gonzalez JJ, et al: Cancer in thyroid nodules. A community hospital survey. Arch Intern Med 144:474-476, 1984.
- 6. Belfiore A, Giuffrida D, La Rossa GL, et al: High frequency of cancer in cold thyroid nodules occurring at young age. Acta Endocrinol 121 197-202, 1989.

 7. Bocker W, Dralle H, Koch G, et al. Immunohistochemical and electron-microscope analysis
- of adenomas of the thyroid gland. II. Adenomas with specific cytological differentiation. Virchows Arch (Pathol Anat) 380:205, 1978.
- 8. Blum CB: Comparison of properties of four inhibitors of 3-hydroxy-3-methylglutaryl-coen-zyme A reductase. Am J Cardiol 73:3D-11D, 1994. 9. Smith PF, Grossman SJ, Gerson RJ, et al. Studies on the mechanism of simvastatin-induced
- thyroid hypertrophy and follicular cell adenoma in the rat. *Toxicol Pathol* 19:197-205, 1991 10. Data on file. Sandoz research institute, East Hanover, NJ.
- 11. Vickers S, Duncan CA, Chen I-W, et al: Metabolic disposition studies on simvastatin, a cholesterol-lowering prodrug. Drug Metab Disp 18:138-145, 1990.
- 12. Illingworth DR, Tobert JA: A review of clinical trials competing HMG-CoA reductase inhibitors. Clin Ther 16:366-385, 1994. 13. Scott WA: Hydrophilicity and differential pharmacology of pravastatin, in Lipid Manage-
- ment: Pravastatin and the Differential Pharmacology of HMG-CoA Reductase Inhibitors. London, Round Table Series Royal Soc Med Services 16:17-25, 1989. 14. Tsujita Y, Kuroda M, Shimada Y, et al: CS-514, a competitive inhibitor of 3-hydroxy-3-
- methylglutaryl coenzyme A reductase: tissue-selective inhibition of sterol synthesis and hypolipidemic effect on various animal species. Biochem Biophys Acta 877:50-60, 1986. 15. Mosley ST, Kalinowski SS, Schafer BL, et al. Tissue-selective acute effects of inhibitors of
- 3-hydroxy-3-methylglutaryl coenzyme A reductase on cholesterol biosynthesis in lens. J Lipid Res 30:1411-1420, 1989. 16. Koga T, Shimada Y, Kuroda M, et al. Tissue-selective inhibition of cholesterol synthesis in
- vivo by pravastatin sodium, a 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitor. Biochem Acta 1045:115-120, 1990
- 17. DeVries ACJ, Vermeer MA, et al. Pravastatin and simvastatin differently inhibit cholesterol biosynthesis in human lens. Invest Ophthalmol Vis Sci 34:377-384, 1993
- 18 DeVries ACJ, Cohen LH: Different effects of hypolipidemic drugs pravastatin and lovastatin on the cholesterol biosynthesis of the human ocular lens in organ culture and on the cholesterol content of the rat lens in vivo. *Biochem Biophys Acta* 1167:63-69, 1993.
- 19. Bargossi AM, Battino M, Gaddi A, et al. Exogenous CoQ10 preserves plasma ubiquinone levels in patients treated with 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors. Int J Clin Lab Res 24:171-176, 1994.
- 20. Elmberger PG, Kalen A, Lunk E, et al: Effects of pravastatin and cholestyramine on prodof the mevalonate pathway in familial hypercholestcrolemia. J Lipid Res 32:935-940, 1991
- 21 Ghirlanda G, Oradei A, Manto A, et al: Evidence of plasma CoQ10-lowering effects by HMG-CoA reductase inhibitors a double blind, placebo-controlled study J Clin Pharmacol 33:226-
- 22. Laaksoncn R, Ojala J-P, Tikkanen MJ, et al: Serum ubiquinone concentrations after short and long-term treatment with HMG CoA reductase inhibitors. Eur J Pharmcol 46:313-317, 1994.
- 23. Watts GF, Castelluccio C, Rice-Evans C, et al. Plasma coenzyme Q (ubiquinone) concentrations in patients treated with simvastatin. J Clin Pathol 46:1055-1057, 1993
- 24 Brown MS, Goldstein JL: Multivalent feedback regulation of HMG-CoA reductase, a control mechanism coordinating isoprenoid synthesis and cell growth. J Lipid Res 21:505-517, 1980. 25. Maltase WA, Sheridan KM: Isoprenylated proteins in cultured cells: subcellular distribution
- and changes related to altered morphology and growth arrest induced by mevalonate deprivation. J Cell Physiol 133:471-481, 1987

Department of Health Report

Tennessee Legislation on Safer Medical Devices

Ruth Hagstrom, MD, MPH

State legislation signed into law March 19, 1999 requires workplaces where employees are exposed to needles or other medical devices contaminated with potentially infectious material to evaluate safer medical devices, and to use those that are more effective in preventing exposure incidents. Annually in the United States there are around 590,000 to 800,000 sharps injuries among health care employees.

The new law involved the Tennessee Health Department in two major activities. We have worked with the Department of Labor and Workforce Development and Tennessee OSHA in reviewing sharps injury prevention technology, and have assisted TOSHA in compiling a list of existing devices to be available to all employers in Tennessee as an aid in complying with the requirements of the law. The second activity involved developing our own response to the legislation as an employer of health care workers.

In developing our response to the legislation, and as an aid in establishing priorities, the history of sharps injuries occurring in our clinics over the past five years was reviewed. As expected, given the large numbers involved, the highest occurrence of needle sticks occurred in association with immunizations. Phlebotomies and lancets accounted for many. A preponderance of injuries occurred in the act of removing the sharp from the injection or sampling site and placing it in the sharps container.

A medical committee was appointed to draw up a plan for evaluating safer sharps. We developed pilot projects in ten locations involving five county health departments to evaluate several devices that had useful features. We selected several different syringe/needle injection systems and blood collection devices for the test project. Assessment forms showed a clear-cut preference among our nursing personnel for the retractable needle devices. These will be adopted for use in our clinics. Meanwhile our medical committee's work will continue as we evaluate other devices already on the market, or new devices as these become available.

This assessment is important, since workplace environ-

ments differ from site to site. Before adopting any device, employers should evaluate it in their own setting. Sometimes a device that works well in one environment will not be suitable in another seemingly similar one. The choice of an acceptable safer device may likewise vary, depending on the procedures and personnel involved.

There are a number of studies on the effect of the newer safety devices in lowering the rate of sharps injuries, and some useful data are beginning to emerge. An article titled "Evaluation of Safety Devices for Preventing Percutaneous Injuries Among Health-Care Workers During Phlebotomy Procedures" appeared in the *Morbidity Mortality Weekly Report* (46:21-25, 1997). This study summarizes a collaborative study by the Centers for Disease Control and Prevention and six hospitals to evaluate safety devices for phlebotomy. The findings indicate that use of safety devices significantly reduced phlebotomy-related percutaneous injury (PI) rates while having minimal clinically apparent adverse effects on patient care. There was a significant reduction in injuries associated with phlebotomy with use of the devices with safety features as compared to the conventional devices.

It is well recognized that the newer devices will cost about five times as much as conventional devices, but these costs must be weighed against the cost to the employer from health care workers' exposure to bloodborne pathogens during the course of their work. Sharps injuries not resulting in an employee bloodborne infection cost an estimated \$1,000 or more per injury. This includes the cost of investigating the injury, documenting the occurrence, testing both patient and employee for bloodborne pathogens following the exposure, and continuing follow-up of the employee and sometimes the patient for infection which could emerge long after the injury. In some cases, very expensive drugs, sometimes with serious side effects, must be administered to the employee, depending on the nature of the exposure and the findings of testing. If the employee should become infected from HIV, Hepatitis B, Hepatitis C, or other infectious agents, the cost becomes exorbitant. The average cost of one case of HIV is approximately \$165,000, with costs ranging as high as several hundred thousand to several million dollars, depending

From the Tennessee Department of Health, Nashville. Dr. Hagstrom is medical director, TDH Bureau of Health Services.

on circumstances.

Late in 1999, Federal OSHA published a compliance directive that changed their interpretation of the existing bloodborne pathogen standard to require the use of the most protective sharps injury prevention device available. TOSHA's requirements follow OSHA's compliance directive and the Tennessee legislation as outlined below:

Compliance with the Bloodborne Pathogen Compliance Directive CPL 2-2.36C requires:

• Updating the Exposure Control Plan to ensure that it contains an effective procedure for identifying currently available engineered sharps injury protection devices, and selecting such devices, where appropriate, for procedures performed by employees.

• Evaluating available engineered sharps injury prevention devices and using those that are most effective in preventing exposure incidents unless they are medically contraindicated.

Compliance with Tennessee Code Annotated 50-3-203(e)(1)-(e)(4) requires:

- Documenting information on the sharps injury prevention devices evaluated and adopted.
- Documenting the type and brand of device in use when there is an exposure incident.
- Documenting when sharps injury prevention devices are not used because they are medically contraindicated or not more effective than alternative measures used by the employer.

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News and Views

TMA Alliance Report

TMAA County Presidents

The Tennessee Medical Association Alliance is proud to announce the newly installed presidents for our county alliances. These leaders give countless hours to the work of the alliance with worthwhile health projects, legislation issues, membership concerns, and fund-raising for AMA Foundation. We would like to thank you as members of TMA for supporting them and the work their alliances are doing and I would like to thank them for their commitment. They are already working hard!

Bedford County Medical Alliance	Barbara Blanton
Blount County Medical Auxiliary	Debbie Gilliam
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Sevier County Medical Alliance	Denise Razzak
Shelby County Medical Alliance	Floy Cole
Washington-Unicoi-Johnson County	

Medical Alliance Christa Stoscheck

Marcia Young TMAA President

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Cumberland County Medical Society Craig F. McCabe, MD, Crossville

Knoxville Academy of Medicine Basia I. Jenkins, MD, Knoxville James W. Kirksey, MD, Knoxville David J. Riden, MD, Knoxville

Memphis-Shelby County Medical Society Frederick M. Azar, MD, Germantown Ajit K. Biswas, MD, Memphis Phillip R. Bowden, MD, Memphis Ramesh C. Gupta, MD, Memphis Vishad Kumar, MD, Cordova Sadeem Mahmood, MD, Germantown Fazal M. Manejwala, MD, Germantown John C. Ring, MD, Memphis Fred G. Thomason, MD, Memphis Benton M. Wheeler III, MD, Memphis

Nashville Academy of Medicine Christina L. Cain-Swope, MD, Nashville

Stones River Academy of Medicine
Ray C. Johnson, MD, Murfreesboro
Frank B. Louthan III, MD, Murfreesboro
David O. Ranz, MD, Murfreesboro

Warren County Medical Society
Donald M. Arms, MD, McMinnville

In Memoriam

Henry Smith Christian, MD, age 87. Died March 18, 2000. Graduate of Johns Hopkins University School of Medicine. Member of Knoxville Academy of Medicine.

Richard Alvah Miller, MD, age 87. Died April 10, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

S. Hewitt Morrow III, MD, age 58. Died March 23, 2000. Graduate of University of Tennessee College of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Bethel Campbell Smoot, MD, age 86. Died April 9, 2000. Graduate of University of Tennessee College of Medicine. Member of Warren County Medical Society.

Edward N. Stevenson, MD, age 89. Died April 4, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Margaret Henderson Wallis, MD, age 28. Died March 23, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Frank G. Witherspoon Sr., MD, age 82. Died March 20, 2000. Graduate of University of Tennessee College of Medicine. Member of Nashville Academy of Medicine.

Personal News

Yasmine Subhi Ali, a third-year medical student at Vanderbilt University School of Medicine, was one of 50 outstanding young medical professionals honored by the AMA Foundation, recognizing her exceptional leadership among her peers and achievements in non-clinical community activities.

Deborah C. German, MD, Nashville, senior associate dean at Vanderbilt University School of Medicine, received this year's Athena Award, an honor recognizing excellence by women in the Nashville community.

Tara L. Sturdivant, MD, Knoxville, previously Knox County Health Department Director of Primary Care Services, has been appointed to serve as Public Health Officer for the Knox County region.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during March, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Jerome H. Abramson, MD, Chattanooga Patricia M. Bihl, MD, Nashville J. Bradford Carter, MD, Oak Ridge William D. Crawley, MD, Chattanooga Charles E. Darling, MD, Oak Ridge Jeffrey G. Davis, MD, Oak Ridge Jeffrey L. Douglas, MD, Kingsport Stephen C. Goodwin, MD, Jackson Ronald F. Kourany, MD, Nashville Vichien Lorch, MD, Knoxville John H. Nading, MD, Nashville C. Leon Partain, MD, Nashville Warren R. Patterson, MD, Nashville David M. Schull, MD, Nashville Mark H. Thomas, MD, Bristol Jeffrey A. Uzzle, MD, Oak Ridge

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

Vanderbilt University Medical Center

Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians must be licensed and be in active practice with evidence of liability coverage.

Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

July 2-4 3rd Annual Vanderbilt/Duke Ultrasound Symposium: Color Doppler—Asheville, NC

July 17-22	23rd Annual Contemporary Neurology Symposium—
	Hilton Head Island, SC

July 26-28 Prescribing Controlled Drugs

Aug 31-Sep 2 6th Annual Fall Neonatology Symposium—Charleston, SC

Sep 16 Depression and Neurology Sep 20-22 Prescribing Controlled Drugs

Oct 13-14 Phonosurgery Tutorial & Hands-On Workshop
Oct 27-28 Laryngovideostroboscopy and Therapeutic Implications

October Updating Gastroenterology for Practitioners Nov 3 3rd Annual HIV/AIDS Symposium

Nov 29-Dec 1 Prescribing Controlled Drugs

Dec 1-2 26th Annual High Risk Obstetrics Seminar

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

Continuing Education Schedule

Memphis

July 31-Aug 5 14th Annual Contemporary Issues in Obstetrics and

Gynecology—Destin, Fla.
Sept 13-16 Newborn Conference

Oct 6 Kaleidoscope of LD Conference Dec 1-3 Clinical Update in Ophthalmology

Knoxville

July 7-8 Drugs of the Millennium & Herbal Supplements (and) Medication for the Elderly Patient: Drug Interactions &

Treatment Considerations—Franklin

July Advanced Life Support in Obstetrics

Sept 20-23 Cardiology & Internal Medicine Update 2000 Nov 8 5th Annual Pediatric Trauma & Emergency Medicine

Nov 14-16 Advanced Cardiac Life Support

Nov 29-30 Pediatric Life Support

Chattanooga

Nov 30-Dec 17th Annual Internal Medicine Update
Dec 2 10th Care of the Aging Patient Symposium

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel.

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Listings for Career Opportunities are sold as follows: \$35 for the first 50 words (\$25 for TMA members), 25 cents for each additional word. Count as one word all single words, two initials of a name, single numbers, groups of numbers, hyphenated words, and abbreviations. Advertisers may utilize a box number for confidentiality, if desired, in care of Tennessee Medicine, PO Box 120909, Nashville, TN 37212-0909. Use of this box in an ad will add eight words to the total count.

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JEFFERSON CITY, TENNESSEE—Emergency Department Directorship. Southeastern Emergency Physicians, a Team Health affiliate, has a full-time clinical/directorship opportunity for BC or BP/BE EM, FP or IM/Peds with ED experience. New facility under construction with state-of-the-art ED. Jefferson City, near Knoxville and Gatlinburg/Pigeon Forge, offers fishing, boating, great golf courses, and excellent economic conditions. Jefferson City is a wonderful place to live and raise a family in a small but growing community. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. Please contact Laurie Cordova at (800) 909-8366, ext. 3377 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

GREATER KNOXVILLE, TENNESSEE—Internal Medicine Opportunity. Southeastern Emergency Physicians, a Team Health affiliate, is seeking BC physicians in IM for a full-time opportunity with a Knoxville Area Hospitalist Group available July 1, 2000. Located in the foothills of the Smoky Mountains, Knoxville is home to the University of Tennessee and Women's Basketball Hall of Fame. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. For more information, call Laurie Cordova at (800) 909-8366, ext. 3377 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

OAK RIDGE, TENNESSEE—Emergency Physician. A full-time ED opportunity exists for a physician BC or BP/BF in EM or primary care specialty with EM experience. Facility has a high volume and acuity with multilayered physician staffing. Located 15 minutes from Knoxville, Oak Ridge offers excellent schools, a low crime rate, and easy access to many lakes and recreational amenities. Opportunity offers competitive compensation, paid malpractice insurance, equitable scheduling, and no call. Please fax your CV to Jim Henry, MD, FACEP, c/o Michele Disney, at (865) 481-1532 or call (865) 481-1922.

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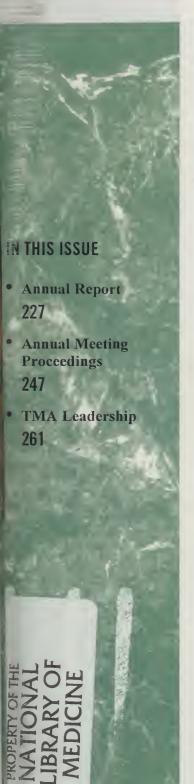


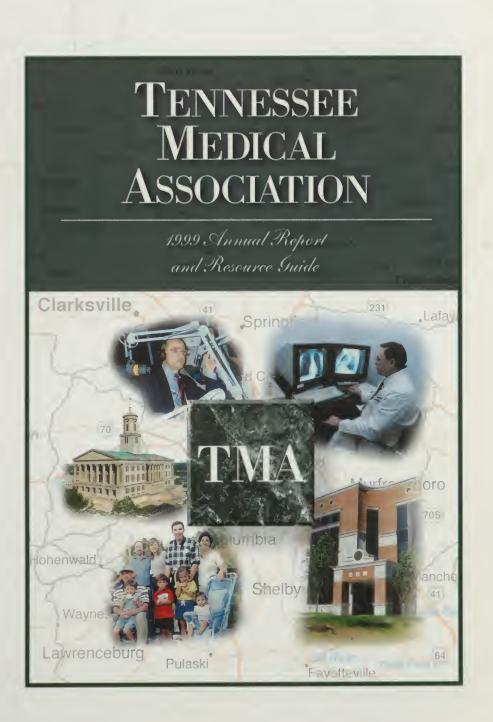
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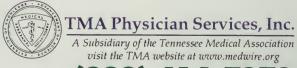
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Volume 93, Number 7 ~ July, 2000

Office of Publication 2301 21st Avenue South PO Box 120909 Nashville, TN 37212-0909 Phone (615) 385-2100 Fax (615) 383-5918 e-mail jeanw@tma.medwire.org

Editor
John B. Thomison, MD
Assistant Editor
Robert W. Ikard, MD

Managing Editor Jean Wishnick

Business Manager Donald H. Alexander

Sr. V.P.—Communications Russ Miller

Advertising Representative Jean Wishnick Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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A Year In Review

he following annual report of the Tennessee Medical Association is a summary of our activities over the last 12 months or so. We hope to provide you with some answers to a few questions that have come up quite frequently, mainly "What is TMA doing for doctors?" Please take time to read of our accomplishments by doctors, for doctors, and pass along this information to a colleague. Let your peers know that there truly is an organization looking out for the best interests of Tennessee physicians — the TMA.

It is our mission to evolve into "Tomorrow's Medical Association," an organization for the 21st century. As we all know, membership is vital to our existence, and we have experienced some decline in numbers.

- We believe it is essential for you to be a member, but checkbook membership is not enough.
- We need active members of the TMA.
- We ask that you help us recruit new physicians. Your active involvement is crucial in leading our organization to new levels. To make it easier, TMA leaders are working hard to make the TMA more relevant and marketable to doctors in our state.

The TMA is committed to being the collective voice for our member physicians, to being advocates for good medicine for our physicians and their patients and to holding education in highest esteem. We strive to stay visible as an organization of and for physicians and to maintain our relevancy to all physicians.

We must evolve to survive as a professional association. We are in the midst of a technological revolution that is changing business and life before our eyes. As we "take it to the next level" as an association, we will continue to provide valuable and desirable services to our members, while exploring beneficial new programs and activities. In essence, we hope to make it impossible for physicians not to be TMA members.

We appreciate your support of the TMA. Remember, it is not enough to merely be a member. Get involved. Make a difference. In the words of Eleanor Roosevelt, "It is not fair to ask of others what you are not willing to do yourself."

J. Chris Fleming, MD

some ; C Henry MD

TMA President

James D. King, MD

Chairman, TMA Board of Trustees

999 TMA ANNUAL REPORT

Advocacy

Good medicine is more than making the right diagnosis and prescribing the cure - it also means looking out for patients, fellow physicians and health care in general. When issues arise that may affect the practice or even the very definition of good medicine, the Tennessee Medical Association responds with a unified effort to serve the best interests of its members and their patients.

In 1999, the TMA championed for "good medicine" on the issues of TennCare, prompt pay from all insurers, liability for Managed Care Organizations, the availability of quality information on all health care providers and MCOs, Medicare's definition of consultation, and a variety of legislative measures, including bills to allow oral surgeons, psychologists and podiatrists to expand their scope of practice.

TennCare

Tennessee's Medicaid replacement program generated big headlines again in 1999, with several MCOs declaring insolvency and the threatened pullout of the state's largest TennCare provider. TMA was an active, vocal participant in the TennCare debate.

TMA sought reforms to require independent review of all TennCare MCO's provider networks and closer state scrutiny of TennCare MCO operations. TMA's legislative team also won the fight to force TennCare providers to publicly disclose their financial interests and expenditures. Meantime, TMA's Board of Trustees kept tabs on the shifting leadership within TennCare, approved resolutions advocating uniform TennCare formularies and continuity of care for TennCare patients, and led the call for sweeping reforms in the structure of the program; the culmination of which was a May 2000 announcement by the state calling for overhaul of the TennCare program.

Xantus - Seven days after this TennCare MCO entered State "receivership" in March 1999, TMA met with Xantus officials to determine the immediate and long-term impact on its physician members. The Association later joined with the Tennessee Hospital Association and the Tennessee Hospital Alliance to track the Xantus recovery on behalf of its physicians and hospital creditors. Throughout the year, TMA notified its members on the twists and turns in the Xantus receivership case with updates and claim information published in "The Chart" and on its web site, MEDWIRE. TMA officials continually pressed the state to take financial responsibility and issue fast-track payments to settle a portion of Xantus' outstanding payments.

BC/BS Pullout - The State of Tennessee is now on "probation" with its largest TennCare provider. Blue Cross/Blue Shield of Tennessee had decided to pull out of the TennCare program in June 2000, but intense negotiations led BC/BST to postpone its exodus. The TMA has kept its members updated and has used the ongoing battle as ammunition in its call for a revamping of the program. TMA President J. Chris Fleming, MD, responded to Blue Cross' initial pullout decision, saying that TMA understands the dilemma: "The warning signs of TennCare's demise have been increasing in recent months and Blue Cross/Blue Shield, like physicians and hospitals, has reached a final conclusion that the TennCare experiment is failing." Fleming pledged TMA resources to help the state design a better program that meets the health care needs of its poor and uninsured, treats providers fairly and works within the state budget.

Task Force - TMA didn't wait for the state to ask for help in overhauling TennCare; in October 1999, the Board of Trustees acted on a recommendation from its Executive Committee and appointed a TennCare Task Force. The 14-member group was given the task of authoring viable reform suggestions. By November, the task force was unveiling the first phase of its recommendations and the work continues. Task force Chairman J. Fred Ralston, Jr., MD, took TMA's strategy forward, testifying and introducing TMA's plan to the House Finance Committee and the State Commission on the Future of TennCare in March of 2000.

Prompt Pay

TMA successfully capped off its legislative session for 2000 with the passage of the Insurance Prompt Payment Bill. By a margin of 30 to 0 (3 absent), the Tennessee

Senate voted to ensure that the insurance industry pay health care providers in a timely fashion for services provided to patients or face interest changes and possibly fines. Expected to take effect November 1, 2000, the prompt pay law requires that any insurance entity regulated by the State of Tennessee pay clean paper claims within 30 days of receipt and clean electronic claims within 21 days of receipt. Practices not paid within these time limits will be entitled to interest on the claims at the rate of 12 percent per year.



Armed with case studies from Texas, TMA fought successfully for this patients' rights bill. Despite heavy lobbying by the insurance industry, legislators were not swayed and the measure passed overwhelmingly in the State House of Representatives. Senators are still discussing whether to support this bill allowing patients to take their MCOs to court if they are harmed by a delay or decision that negatively impacts their medical care.

Collective Bargaining, Joint Negotiations and the AMA PRN

On a medical chart, the acronym PRN is widely understood by physicians to mean "as needed." When the American Medical Association created a new national labor organization to represent employed physicians in June 1999, it chose a name that deliberately fit those initials. Physicians for Responsible Negotiations (PRN) will be the strong voice of organized medicine "exactly where it's needed - at the bargaining table," according to AMA officials. The goals of PRN will be met without strikes or any action that would endanger patient care, and will strictly adhere to the ethics and principles of the medical profession. TMA was among the first state medical associations to push forward with a related "State Action Doctrine/Joint Negotiations" bill that would allow physicians and other health care providers



to engage in collective negotiations with MCOs that own at least 15% of a local market share.

Protecting Patients

TMA logged a number of victories in the Tennessee General Assembly in 1999, while continuing battles on other legislative issues, including measures that would allow non-MD health practitioners to expand their scope of practice.

Oral Surgeons - TMA continues fighting a bill to allow oral surgeons with dental degrees to go beyond working on the teeth and jaws of their patients and perform cosmetic surgery on the "full facial complex." The legislation appeared after TMA challenged a 1998 Tennessee Board of Dentistry ruling and the challenge was upheld in Davidson County Chancery Court.

Psychologists - This was a big victory for TMA over Tennessee psychologists who wanted to prescribe controlled substances after only 300 hours of classroom instruction. Association lobbyists squelched the proposal in committee by proving that psychologists were under-qualified and their claims of a shortage of prescribing professionals in rural Tennessee were untrue.

Podiatrists - TMA, working in consort with the Tennessee Orthopaedic Society, reached consensus and agreement with podiatrists to pass legislation that will require podiatrists who wish to perform ankle surgery to meet standards established by their professional board plus those recognized by medical specialties, including two years of surgical residency.

Consult Issue Resolved

When the Health Care Financing Administration (HCFA) announced in November 1998 that it was considering a change in consultation codes, TMA leapt into the fray. Working feverishly with AMA, HCFA and Cigna-Medicare, the Association helped convince both agencies to pay for consultations according to CPT guidelines. TMA President J. Chris Fleming, MD, called it "an example of what physicians can accomplish through organized medicine."

Voice

The Tennessee Medical Association sounded off on a number of important issues in 1999, speaking with the collective voice of more than 6,200 physicians across the state,. Among the issues that generated surveys, letters and faxes to the membership this year: medical specialties represented in the TMA House of Delegates, the Governor's Tax Reform plan and the distribution of Tobacco Settlement dollars.

Specialties in the House of Delegates

TMA ANNUAL REFORT

For the first time, TMA opened its House of Delegates (HOD) to representation from state medical specialty societies. TMA officials say it is a direct result of outreach efforts that began several years ago, and has culminated in a much-needed, positive move toward the inclusion of medical specialty societies as a voice within the Association. The following organizations were represented in the HOD at the 2000 Annual Meeting: TN Society of Anesthesiologists,

Tennessee Dermatology Society, Tennessee College of Emergency Physicians, Tennessee Academy of Family Physicians, Tennessee Academy of Neurology, Tennessee Academy of Ophthalmology, Tennessee Orthopaedic Society, Tennessee Society of Pathologists,



Tennessee Obstetrical & Gynecological Society, Tennessee Orthopaedic Society, Tennessee Chapter of the American Academy of Pediatrics, Tennessee Radiological Society and the Tennessee Geriatrics Society.

TMA Council on Medical Specialty Societies

This was the beginning of TMA's efforts to reach out to medical specialty groups across the state. Created as a forum for those societies, this independent council continues to address issues of concern to medical specialists and present their recommendations to the TMA Board of Trustees and now the HOD. This is a key element of the "federation of medicine" in Tennessee, according to TMA Chief Executive Officer Don Alexander.

Grassroots Work on Tax Reform

TMA let its voice be heard on Governor Don Sundquist's tax proposals in 1999, first with member surveys and statements of opposition to the "fair tax" proposed on small businesses - affecting most physician practices - and later with an all-out campaign dealing with the Governor's tax reform plan. TMA's Board of Trustees voted in July 1999 to join the grassroots movement to educate the public about the current tax structure and how it affects the state's economy, particularly TennCare.

1999 TMA ANNUAL REFORT

Tobacco Settlement Coalition

Perhaps the loudest statement made by the TMA in 1999 was

on the issue of the Tobacco Settlement Agreement. The Association made an early statement that the expected \$4.8 billion should be used as originally intended, and repeated the message all year long. To further that message, TMA joined the American Lung Association, American Heart Association and American Cancer Society to form CHART, the Campaign for a Healthy and Responsible Tennessee. CHART held media events and hosted Lobby Day on Capitol Hill to urge lawmakers not to divert the funds, but to spend a lion's share of the federal money to help patients and fund programs to prevent and stop smoking.



Doctors Selling Products

What should be done about physicians who sell health-related products to their patients? The

TMA's Judicial Council set out to answer that question in 1999. After polling medical specialty societies across Tennessee and studying rulings by the AMA Council on Ethical and Judicial Affairs (CEJA), the Judicial Council concluded that doctors' office sales of health-related items are ethical as long as they meet a five-part test to make sure the profit margin is reasonable, the physician is not an exclusive dealer, the product has scientifically proven health benefits, the sale will benefit the patient and the physician gives full disclosure of any financial interest.



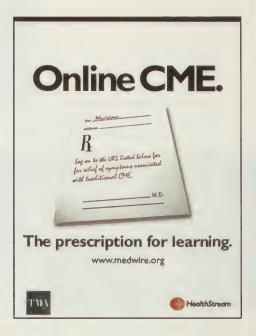
Education

High school, college, medical school, residency, boards, continuing medical education - a physician's quest for knowledge never ends. The Tennessee Medical Association expanded its programs to meet the CME needs of its members, and to make it easier to access that knowledge.

Online CME through HealthStream. Com

TMA ANNUAL REPORT

Physicians spend a good 15% of their Internet time pursuing professional training and education. Recognizing the growing demand, TMA signed a formal agreement to provide CME programs through HealthStream.com, a Nashville-based Internet company devoted to online health care education. Member physicians can access CME courses through TMA's web site, MEDWIRE, and receive special discounts on registration fees. In return, HealthStream, Inc. signed on as an annual corporate sponsor of the TMA.



Expanded Web Site

A "new and improved" version of TMA's web site, MEDWIRE (www.medwire.org), became available in 1999. Along with the standard information package about the services and programs of the Association, members can now tap into hundreds of hours of online CME, utilize a site map and member database, search for archived information, keep track of medical meetings, order



materials from the "TMA Store," or contact legislators regarding important health care issues. MEDWIRE also features a search function that allows patients to find out whether their doctor is a TMA member.

Legislative ListServ

New technology was debuted during the 2000 session of the Tennessee General Assembly. The "TMAdvoc8" Listserv program kept TMA members updated with breaking legislative news - the information was delivered right to their desktops. Positive feedback has

lead to plans for a full-blown electronic newsletter that will include links to web sites containing more detailed information.

TMA Leadership Summit

Mother Nature tried again in January 2000 to thwart the success of the TMA Leadership Summit - to no avail. More than 150 leaders braved the snow and ice to hear the latest about "e-Medicine," legislative updates, and take a behind-the-scenes look at political advertising. Event sponsors for 2000 included GlaxoWellcome, State Volunteer Mutual Insurance Company, Pfizer,

Merck, TMA Physician Services and The TMA Association Insurance Agency.

Troubleshooting Guide

MA ANNHAL REFORT

The TennCare picture changes frequently, but physicians across the state can stay on top of those changes with the TMA's TennCare Troubleshooting Guide. New revisions make the guide more helpful than ever, taking MDs stepby-step through the system as they work to fix reimbursement delays or patient care denials.

Y2K Efforts

TMA met the "millennium bug" head-on with helpful information on preparing for Y2K. Articles appeared in "The Chart" in March 1999; the May issue of Tennessee Medicine focused entirely on Y2K issues and their potential impact on the medical community. Additional information and resources were posted on the MEDWIRE web site.

Professional and Public Relations

Managed Care Initiative

Fears about the negative impact of managed care on medical practices were proven in April 1999, when TMA conducted a survey of every licensed doctor in Tennessee. Physicians, both members and non-members of TMA, rated the state's 13 largest MCOs as "poor to mediocre." In addition, the MDs overwhelmingly agreed that managed care had become a roadblock to patient care and a financial drain on their practices.

A ANNUAL REPOS

TMA used the survey results to launch its Managed Care Initiative, a plan to publicize the "report card" on MCOs, and use the feedback to communicate with each MCO with an eye toward making much-needed improvements. A statewide media tour generated positive media coverage in Nashville, Chattanooga, Knoxville, the Tri-Cities, Memphis and Jackson; additional publicity came with an Audio News Release distributed by the Tennessee Radio Network to some 3.8 million potential listeners.

TMA officials have opened discussions with one MCO, United Health, and they continue working to set up meetings throughout 2000 with nine other managed care companies.



TMA Focus 2000 and Futures Task Force

Changes are coming fast and furious for the medical world, and TMA should be able to change with it. That was the idea behind TMA Focus 2000, a statewide series of focus group meetings in late 1999.

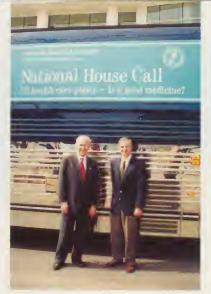
Physicians met in seven markets across the state to debate TMA's current leadership structure, mission, services and effectiveness. Results of the "Listening Tour" were handed to a specially appointed Futures Task Force, chaired by TMA Past-President Dr. David Gerkin. The task force was instructed to make recommendations on what TMA should look like in 2000 and beyond.

Student Survival Backpacks

With the goal of recruiting new blood into the Association, TMA paid a visit to the state's four medical schools in August 1999. Representatives from TMA's Membership Department and the Tennessee Medical Education Fund (TMEF) were able to hand out "Medical Student Survival Kits" at medical school orientations statewide.

AMA House Call

A politically aggressive AMA came to Tennessee as part of its "National House Call." The campaign was launched in December 1999 to elicit support for health care concerns from each presidential candidate. Making stops in key primary states, the AMA bus tour drove into Nashville and Memphis in early March, joining TMA leaders in media interviews, professional and governmental meetings, visits to medical facilities and a stop at the Gore 2000 Headquarters.



Committee Chairman Burgin Dossett, Jr., MD. "In those days, we did not have mass communications, the Internet, managed care or governmental health care programs." A lot has changed, but TMA still receives much of its grassroots strength from local societies and, in turn, remains committed to helping them succeed. In all, 46 of the 51 medical societies were rechartered: the remaining five societies either received a one-year provisional charter or indicated that their members would join directly with TMA.

Organ Donation Campaign

"We need to lead by example." That comment from President J. Chris Fleming, MD, came in February as TMA launched its own version of the AMA's National "Live and Then Give" campaign. Aimed at raising awareness among physicians, their staff and



their families about organ donation, the TMA effort included: distributing brochures with Uniform Donor Cards to its membership, working with 51 local medical society chapters across Tennessee to initiate discussion about organ donation, E-mail communiqués to TMA members pointing them to information on the web

site and creating and maintaining an in-house resource center to assist the public and the media.

Rechartering of Component Medical Societies

With a new century looming, TMA sought in 1999 to recharter its component medical societies across Tennessee. The practice of medicine was "far simpler and far different" when they were first chartered decades ago, according to Judicial

Medicare Fraud Alert and Response

HCFA turned up the heat on Medicare fraud in 1999, but in the process, the "Who Pays? You Pay" campaign turned up the suspicion level between doctors and their patients. The AMA responded to HCFA's effort to turn patients into fraud investigators by drafting a letter explaining the difference between billing errors and Medicare fraud. TMA drafted an "Open Letter to Your Patients About Medicare Fraud" in the July/August edition of "The Chart." Editors encouraged physicians to reprint the letter on personal stationery and distribute it to all patients.

Consumer Right-to-Know Web Site

With the click of a mouse, Tennesseans can now check the credentials of their physician. With the support and help of TMA, the Tennessee Department of Health established the "Health Professionals Licensure Verification System." The online service is part of a larger web site that allows patients to research a health care provider, track the meetings and minutes of Tennessee's Licensure Boards, register complaints or make sure a potential care giver has no history of abuse. This web site, along with Internet Physician Profiles that became available in 1999, gives health consumers a more complete picture of the health professionals in whom they place their trust.

Membership

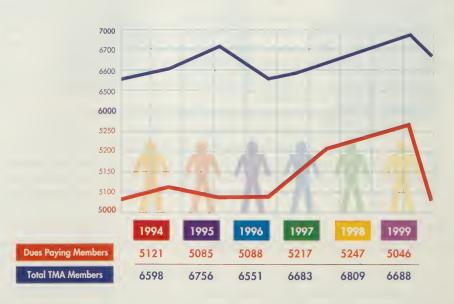
"Strength in numbers" is an old notion, but timelessly true. In the ever-shifting world of medicine, physicians need to band together as a show of strength, to make their voices heard and to effect change for the better. Both the AMA and TMA noted puzzling drops in membership in 1999. The national and state associations pledged to work together to communicate the importance and the value of organized medicine.

TMA programs and activities benefit physicians, even if they are not dues-paying members - the Association is currently exploring ways to maintain current levels of service, add new services and bring added value that can only be obtained by joining the TMA.

AMA MEMBERS FROM TENNESSEE				
	1999	1998	1997	
TMA Members	4,204	4432	4657	
TMA Direct Members	214	376	155	
Total AMA State Members	4,412	4808	4812	
Non-AMA State Members	1.740	2303	1634	
STATE TOTAL	6,158	7111	6446	
67.8% of TMA Members are AMA	Members			

Recruitment Focus

TMA's Membership Committee set out to focus recruitment efforts where they would have the most impact. Using information from the State of Tennessee Board of Licensure, a list of potential members was created as a starting point. The committee further analyzed the data and compiled a list of the top 10 medical societies with the greatest potential for new members. TMA staff followed through, making contacts and meeting with representatives of each society, leading to several joint membership recruitment and retention marketing efforts.



MA ANNUAL REPORT

A GREATER

IN MEDICINE

PURPOSE ...

Member

Other partnerships were formed in the search for new members. TMA entered a corporate sponsorship agreement with the Tennessee Medical Group Management Association, with both groups pledging to share resources and enjoy the mutual benefits. TMA's Membership Department is also working with the TMA Alliance to identify potential

members.

The success of TMA's credit card program as a pilot project in 1999 led to its full-fledged use during the 2000 dues year. Officials believe the convenience of paying dues by credit card makes renewing TMA membership as effortless as possible.

Member Pin Project

TMA members are getting pinned! New and renewed membership packets now include a handsome lapel pin to be worn on a doctor's lab coat or business jacket. The pin identifies the

wearer as an active participant in the preservation of "good medicine."

New **Member Kits**

More than 500 new members have received redesigned member kits since January 1999. The kits provide members with handy reference information to all TMA benefits, services and programs, plus contact information for staff and TMA leaders.

Spreading the Word (TMA Visibility)

Working hand-in-hand with the Member Pin Project, TMA's CARE program debuted radio advertisements promoting membership in organized medicine. The spots have a dual thrust — highlighting the value to physicians, while encouraging patients to ask their doctors if they belong to the TMA and their local medical society.

TMA MEMBERSHIP REPORT As of December 31, 1999 1999 1998 1997 1996 1995 1994 **MEMBERS** 5217 5088 5085 5121 Dues Paying Active Members 5046 5247 Dues Paying Resident 69 62 59 57 85 77 Dues Exempt Members 1573 1500 1407 1406 1586 1400 Veteran Members 859 878 839 868 636 599 236 400 372 Military, Disabled, Retired 306 102 243 Student Members 395 332 295 550 429 408 TOTAL 6598 6688 6809 6683 6551 6756

56

67

61

33

62

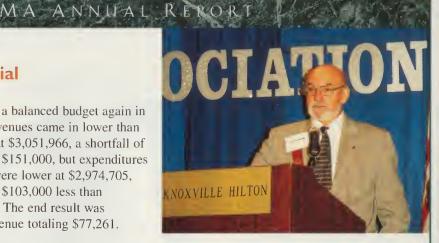
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DEATHS

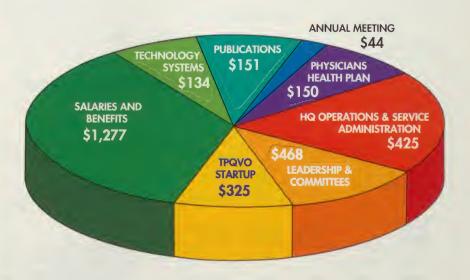
Financial Report

Financial

TMA saw a balanced budget again in 1999. Revenues came in lower than expected at \$3,051,966, a shortfall of more than \$151,000, but expenditures likewise were lower at \$2,974,705, more than \$103,000 less than budgeted. The end result was excess revenue totaling \$77,261.



The drop in revenues raised concern between TMA's financial and membership leaders, who say the organization has hit a growth plateau, despite vigorous recruitment efforts. That calls for building up the reserve fund – currently at \$880,000 — since it may have to become a source of operating income in the future. The Finance Committee recommended separating the reserve fund from the general operating fund and reinvesting all interest income. As additional funds become available, those monies may be used to build up reserves, at the discretion of the Board of Trustees.



2000 Budget (IN THOUSANDS)

SCHEDULE OF REVENUE AND BUDGETED EXPENDITURE COMPARISON

1999 TMA ANNUAL REPORT

For the Year Ended December 31, 1999

			Over/Under
	ACTUAL	BUDGET	BUDGET
REVENUE			
Membership Dues	\$1,934,850	\$2,045,000	\$110,150
Annual Meeting	25,875	42,000	16,125
Journal	84,656	102,000	17,344
Investment Income	92,846	120,000	27,154
Information System User Fees	44,200	43,000	1,200
Subsidiary Administration	188,955	160,000	28,955
Specialty Society Administration	73,156	77,000	3,844
TMA Physician Services, Inc. Dividends	100,000	100,000	0
Rental Income	129,389	135,000	5,611
Licensing Fee Income	325,000	325,000	0
Other	53,039	54,500	1,461
Total Revenue	3,051,966	3,203,500	151,534
expenditures			
General Administrative	1,277,621	1,324,500	46,879
Administrative Support and Services	55,545	75,000	19,455
Travel	46,016	53,300	7,284
Officers and Members	125,526	121,000	4,526
Tennessee Medical Foundation	146,820	150,000	3,180
Committees	44,211	40,000	4,211
Legislative Committee	117,816	92,800	25,016
Continuing Medical Education	8,295	9,200	905
Annual Meeting	44,666	43,000	1,666
Taxes	110,669	117,000	6,331
Headquarters	107,550	97,000	10,550
ournal	151,216	174,800	23,584
Capital Expenditures	19,029	23,000	3,971
Specialty Society Administration	80,800	81,000	200
Other Organizations	35,628	34,500	1,128
Care Program	137,809	178,000	40,191
Information Systems	134,488	135,800	1,312
TPQCVO - LLC	325,000	325,000	0
Contingencies	<u>6,000</u>	<u>3,600</u>	2,400
Total Expenditures	<u>2,974,705</u>	3,078,500	103,795
excess of revenue over			
BUDGETED EXPENDITURES	<u>\$77,261</u>	\$125,000	\$47,739

9⁹97 TMA ANNHAL REPORT

Notables

Tennessee Physicians' Quality Verification Organization

The changing face of health care had an impact on the Tennessee Physicians' Quality Verification Organization in 1999, with the demise of the AMA's American Medical Accreditation Program. TPQVO continues its work to provide statewide physician quality verification services, but is doing so without the benefit of AMAP's leadership.

The organization's second year was marked by strong, positive activity. TPQVO achieved a major goal, winning certification by the National Committee on Quality Assurance through July 2001. Marketing packets announcing the certification were sent to several large managed care organizations.

TPQVO's goals for 2000 and beyond include pursuing contracting relationships with Blue Cross/Blue Shield of Tennessee and the State of Tennessee, becoming financially self-sufficient by 2002, and establishing a web site for marketing and client support purposes. TMA is a one-fifth owner of TPQVO.



Tennessee Medical Education Fund, Inc.

Topping itself again in 1999, the Tennessee Medical Education Fund, Inc., made a record \$277,500 in financial aid awards to Tennessee medical school students. Scholarships and low-interest loans of up to \$10,000 each went to 37 students enrolled at ETSU's Quillen Medical School, University of Tennessee Memphis Medical School, Meharry Medical College School of Medicine and Vanderbilt University School of

Medicine. Nine scholarships, honoring Dr. John H. and Marjorie Burkhart, William V. Wallace and L. Hadley Williams, Jr., were awarded in 1999, totaling \$40,500.

TMEF officials say while the award increases look impressive, they met a smaller percentage of each student's total need, as certified by the financial aid offices at each of the four medical schools. Fund administrators are exploring ways to fill the financial gap for Tennessee's future physicians.

1999 TMA ANNHAL REPORT



Tennessee Medical Foundation

Efforts to help physicians deal with their own health and emotional issues received a financial shot in the arm in 1999. A \$25,000 grant to the Tennessee Medical Foundation's Physicians Health Program was made by The Memorial Foundation. In addition, the Assisi Foundation of Memphis made a grant based on the percentage of contributions physicians make to the TMF. The estimated \$10,000 to \$15,000 grant comes for the year 2000 and may be renewed for up to four years.

TMA also created a new staff position to assist in fund-raising for the Physicians Health Program. Peggy McMurray became the TMF's first Manager of Development in June.

TMA Sponsorship 2000 Program

New sponsorship opportunities have been created for companies wanting to align themselves with TMA and its members. TMA officials are actively seeking eight annual corporate sponsors; three sponsor slots have been filled. Those eight sponsorship packages include benefits such as advertising space in *Tennessee Medicine*, a link on TMA's MEDWIRE web site, and exhibit space at TMA meetings.

TMAA

Membership was down in the TMA Alliance in 1999, but that didn't stop the group from leading the nation again in fund raising for health education and research. Through the AMA Foundation, TMAA collected more than \$200,000. Of those funds, \$146,855 went to Tennessee medical schools in 1999; the checks were presented at TMA's annual meeting in April 2000. The Alliance has led the nation for the past 27 years, raising a total of more than \$2 million for medical student financial assistance.

The Alliance also received \$12,000 from the TMA. The money was used to fund health grant programs, including teen health workshops reaching some 3,000 students across the state, provide directors and officers' liability insurance and the printing of the AMA Foundation Sharing Card. Other 1999 activities included:

- Grassroots work during the legislative session
- Providing food, clothing and services to Domestic Violence shelters
- Distributing literature, videos and posters statewide promoting organ donation, breast cancer awareness, domestic violence awareness, teen sex and anti tobacco messages
- Involvement in a Summer Enrichment Camp for low income children
- Assisting with blood drives
- Awarding loans and scholarships to nursing students

Two new chapters were welcomed into the TMA

Alliance this year – Bedford County Medical Alliance and Sevier County Medical Alliance – bringing the total to 23 county TMAA chapters.



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Abstract of the Proceedings of the House of Delegates of the Tennessee Medical Association Knoxville—April 28-29, 2000

Introduction

The 165th annual meeting of the Tennessee Medical Association was conducted in Knoxville, Tennessee, April 28-29, 2000, at the Knoxville Hilton Hotel with Sam J. Williams III, MD, Chattanooga, presiding as speaker of the House of Delegates. Clark E. Julius, MD, Knoxville, chairman of the Committee on Credentials, announced that there were 135 delegates in attendance for the opening session of the House, which officially represented a quorum. The abstracted minutes of the last regular session of the House of Delegates, published in the June 1999 issue of Tennessee Medicine, were accepted by unanimous vote of the House. There were 152 delegates credentialed for the second session of the House.

Reference Committees

The speaker announced the members of the reference committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

REFERENCE COMMITTEE ON CREDENTIALS

Clark E. Julius, MD, Knoxville, Chairman John B. Bond, MD, Nashville

Michael A. McAdoo, MD, Milan

REFERENCE COMMITTEE ON AMENDMENTS

TO THE CONSTITUTION AND BYLAWS

Subhi D. Ali, MD, Waverly, Chairman

Donald T. McKnight, MD, Jackson

Mitchell L. Mutter, MD, Chattanooga

REFERENCE COMMITTEE A

Robert W. Herring Jr., MD, Nashville, Chairman John W. Hale, MD, Union City

Phillip G. Pollock, MD, Chattanooga

REFERENCE COMMITTEE B

L. Diane Allen, MD, Ooltewah, Chairman

Noel T. Florendo, MD, Memphis

Charles T. Womack, MD, Cookeville

REFERENCE COMMITTEE C

Ronald E. Overfield, MD, Nashville, Chairman

Susan C. Nelson, MD, Memphis

Nancy M. Blank, MD, Cleveland

Nominating Committees

As required in the Bylaws, the Board of Trustees appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The speaker announced the committee members.

EAST TENNESSEE

Leonard A. Brabson, MD, Knoxville Donald B. Franklin, MD, Chattanooga David K. Garriott, MD, Kingsport

MIDDLE TENNESSEE

Subhi D. Ali, MD, Waverly John J. Warner, MD, Nashville J. Fred Ralston Jr., MD, Fayetteville

WEST TENNESSEE

John W. Hale, MD, Union City Mack A. Land, MD, Memphis James D. King, MD, Selmer

ELECTION BY HOUSE OF DELEGATES

April 29, 2000

President-Elect—David K. Garriott, MD, Kingsport

Speaker-Sam J. Williams III, MD, Chattanooga

Vice-Speaker-David E. McKee, MD, Nashville

Vice-President (East Tennessee)

Richard J. Depersio, MD, Knoxville

Vice-President (Middle Tennessee)

Deborah C. German, MD, Nashville Vice-President (West Tennessee)

Robert A. Vegors, MD, Jackson

AMA Delegate (Middle Tennessee)

Clarence R. Sanders, MD, Gallatin (June 2000-December 2001)

AMA Delegate (Middle Tennessee)

Virgil H. Crowder, MD, Lawrenceburg (June 2000-December 2001)

AMA Alternage Delegate (Middle Tennessee)

Ann H. Price, MD, Nashville (June 2000-December 2001)

AMA Delegate (West Tennessee)

Allen S. Edmonson, MD, Memphis (June 2000-December 2001)



TMA President-Elect Dr. David K. Garriott

AMA Alternate Delegate (West Tennessee)

Charles W. White Sr., MD, Lexington (June 2000-December 2001) AMA Delegate (State-at-Large)

J. Chris Fleming, MD, Memphis (June 2000-December 2001)

AMA Alternate Delegate (State-at-Large)

Donald B. Franklin, MD, Chattanooga (June 2000-December 2001) AMA Alternate Delegate (West Tennessee)

David G. Gerkin, MD, Knoxville (June 2000-December 2001)

AMA Young Physician Delegate

Tara Sturdivant, MD, Knoxville (April 2000-April 2001)

AMA Young Physician Alternate Delegate

Charles W. White Jr., MD, Lexington (April 2000-April 2001)

AMA Young Physician Delegate

Steven G. Flatt, MD, Cookeville (April 2000-April 2001)

AMA Young Physician Alternate Delegate

Jeffrey J. Gleason, MD, Columbia (April 2000-April 2001)

TRUSTEES

East Tennessee
David E. Freemon, MD, Johnson City (2003)
Middle Tennessee
Ralph E. Wesley, MD, Nashville (2003)
West Tennessee
John W. Hale, MD, Union City (2003)

COUNCILORS

First District—Edward W. Capparelli, MD, Newport (2002)
Second District—Randall L. Dabbs, MD, Knoxville (2001)—filling unexpired term of Leon Bogartz, MD
Third District—J. Daniel Stanley, MD, Signal Mountain (2002)
Fifth District—B. Keith Robison, MD, Tullahoma (2002)
Seventh District—James C. King, MD, Columbia (2002)
Ninth District—W. Kirk Stone, MD, Union City (2002)

THE ABOVE WERE ELECTED BY THE HOUSE OF DELEGATES

Rechartering of Component Medical Societies

In response to a resolution passed by the 1999 House of Delegates, the Judicial Council was asked to examine the status of the Tennessee Medical Association's 51 component medical societies and to assess whether each society still wanted to remain a part of the Tennessee Medical Association, and if so, whether they were performing the basic functions of a component society.

As a result, the 2000 House of Delegates approved the recommendation of the Judicial Council to fully recharter 46 societies. Four societies (Macon, Robertson, Hawkins, Marshall) were granted provisional one-year charters as they work on reorganizing over the next year. The 51st society, Jackson County, has only one member and he will join the TMA directly.

Constitution and Bylaws Amendments

The speaker reported that there were two amendments to the Bylaws to be considered at this session of the House. The proposed amendments to the Bylaws are shown below, with <u>underlining</u> signifying new language and a <u>strikeout line</u> through words to be deleted.

BYLAW AMENDMENT NO. 1-00

Vacancy Procedures for Office of the President

Whereas, The 1999 Tennessee Medical Association (TMA) House of Delegates referred to the Board of Trustees proposed Bylaw Amendments Nos. 3-99 and 5-99 concerning the duties of a TMA vice-president and the procedure for replacing a TMA presi-

dent unable to complete his/her term; and

Whereas, The Board of Trustees convened a task force to study these issues and to resolve them as a manner of ensuring continuity of leadership for the TMA in future years; and

Whereas, The Board of Trustees concluded that the most efficient method for addressing an unexpired term of a TMA president unable to serve all or a portion of his/her term, would be for the Board to name a replacement from the following officers in the indicated priority: 1) president elect; 2) chairman of the Board of Trustees; 3) vice president from same grand division as president; and 4) another member of the Board of Trustees; and

Whereas, Should the chairman of the Board of Trustees be selected, the Board of Trustees would then select a new chairman since no officer of the TMA may hold more than one office; and

Whereas, If the president is unable to serve, the vice president from that same grand division should become a voting member of the Board of Trustees for the time the president is absent or until the House of Delegates can meet and take further action. Now, therefore be it

RESOLVED, That Bylaw Chapter IV, C, Section 1 be amended by deletion and insertion as follows:

Sec. 1. The president shall be the head of the profession of the state during his or her term of office and as far as practicable shall visit by invitation each of the various component societies of the state and assist the councilors in building up these societies and in making their work more practical and useful. In the event of the president's death, resignation, inability to serve, or removal from office, the president elect will succeed to the presidency to complete the term for which he or she was elected. If that president elect is unable or unwilling to serve as president, or vacates the office because of death or disability after succession, the Board of Trustees shall fill the vacancy for the remainder of the term, the Board of Trustees shall name a replacement from the following officers: In priority order they are: 1) president-elect; 2) chairman of the Board of Trustees; 3) vice-president from same grand division as president; and 4) another member of the Board of Trustees. In the event that this priority order leads to the election of the chairman of the Board as president, the Board of Trustees shall then select a new chairman.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

BYLAW AMENDMENT NO. 2-00

House of Delegates Quorum Requirement

Whereas, The 1999 Tennessee Medical Association (TMA) House of Delegates voted to add medical specialty societies to the TMA House in order to broaden the representation of all physicians across the state at TMA's annual meeting; and

Whereas, Since the House of Delegates only meets once each year and provides the only forum for the election of officers and other important business, it is critical that the meeting be both efficient and results oriented; and

Whereas, Resolution No. 32-99 called for the TMA Judicial Council to conduct a rechartering survey of all component medical societies, and the results show continuing interest in the annual participatory process through the House of Delegates; and

Whereas, Although there are a few societies that seldom send delegates to the House, most do and are well represented; and

Whereas, When physicians from every society are not able to send delegates there is enough representation from across the state to provide ample opportunity to fully debate all the ramifications of every issue, and reducing the absolute quorum requirement will facilitate this process. Now, therefore be it

RESOLVED, That Bylaw Chapter III, Section 4 be amended by insertion and deletion as follows:

A majority of the eligible delegates <u>duly</u> elected and registered at the annual meeting shall constitute a quorum, and all the sessions of the House of Delegates shall be open to members of the Association.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—recommended adoption.

ACTION: ADOPTED

Resolutions

The following resolutions were adopted by unanimous consent during the opening session of the House of Delegates.

RESOLUTION NO. 1-00

Reaffirmation of Resolution No. 3-93 (Health Insurance Claims Administration)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association Board of Trustees develop and support legislative efforts to preclude health insurance carriers from delaying patient treatment because of unnecessary, redundant, or inefficient and nonuniform certification and claims' processing requirements; and be it further

RESOLVED, That a copy of this resolution be sent to the Tennessee Commissioner of Commerce and Insurance, and to health insurance carriers licensed to issue health policies in Tennessee, and that

it be presented to the American Medical Association.

RESOLUTION NO. 4-00

Reaffirmation of Resolution No. 14-93 (TMA Resident Dues)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the dues for resident physicians in the Tennessee Medical Association be \$10 annually beginning in 1994.

RESOLUTION NO. 5-00

Reaffirmation of Resolution No. 17-93 (Advocacy for the Mentally III)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association actively oppose both the closing of any Tennessee-operated mental health hospital and further bed reductions, and support, instead, an increase in health-related services for all mentally ill patients.

RESOLUTION NO. 7-00

Reaffirmation and Modification of Resolution No. 19-93
(Maintaining the TMA Contribution to the Tennessee Medical Foundation Physicians Health Program)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association continue to provide financial support to the Tennessee Medical Foundation's

Physicians Health Program at the level of \$30 per dues paying member, and thereby help ensure the Program's ability to provide complete physician health services statewide through a full-time medical director and at least three part-time assistant medical directors.

RESOLUTION NO. 8-00

Reaffirmation and Modification of Resolution No. 21-93 (Patient Freedom of Choice in Physician Selection)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association in a future session of the Tennessee General Assembly pursue the passage of legislation that would allow any physician licensed under Title 63, Chapters 6 or 9 to participate in health plan panels as long as the physicians were willing to accept the insurer's reimbursement requirements and other administrative regulations for participation and meet community standards for delivery of quality care.

RESOLUTION NO. 9-00

Reaffirmation and Modification of Resolution No. 23-93 (Concurrent Care)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association petition the Health Care Financing Administration and its Tennessee Part B carrier (Cigna) to issue reasonable guidelines for the delivery of, and adequate reimbursement for, concurrent care services provided by the numerous physicians who attend Medicare beneficiaries; and be it further

RESOLVED, That the Tennessee Medical Association inform its members, at the earliest possible time, of the results of its petition efforts with the Health Care Financing Administration and Tennessee's Part B carrier to set up reasonable guidelines for the delivery of, and reimbursement for, concurrent care services provided by physicians who attend Medicare beneficiaries.

RESOLUTION NO. 11-00

Reaffirmation of Resolution No. 35-93 (Denial of Coverage by "Third Party Payors" [Insurance Companies, HMOs, Etc.] Without Explicit Reason or Specific Policy Language)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association pursue the passage of legislation to require "third party payors" doing business in Tennessee to clearly and precisely state in understandable language any coverage restrictions or limitations for diagnostic tests, examinations, or treatments in their health insurance policies or plans in large, bold letters in a prominent place at the front of said policy or plan; and be it further

RESOLVED, That the Tennessee Medical Association pursue the passage of legislation to require "third party payors" doing business in Tennessee to provide and explain to insured patients and their treating physicians the exact justification and criteria which they use for rejecting any and all claim(s) for coverage of medical care; and be it further

RESOLVED, That the Tennessee Medical Association pursue the passage of legislation to require "third party payors" to base their justification for refusing coverage to insured patients only on the explicit language in policy provisions, and not exclude as "experi-

mental," "investigational," or "cosmetic" any treatment which has been shown to have non-cosmetic health benefits within the legitimate medical literature.

The reference committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted, for referral, or for no action. The resolutions that follow are in the form in which they were adopted, not adopted, or referred by the House of Delegates.

RESOLUTION NO. 2-00

Reaffirmation and Modification of Resolution No. 8-93 (Continuation of the Community Awareness Resource and Education [CARE] Program)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That this House of Delegates recognizes that strategic planning and communications preparedness is paramount to the effectiveness of the Tennessee Medical Association (TMA) and that through the Community Awareness Resource and Education (CARE) Program, directed by the Communications and Public Relations Committee, the TMA has been well prepared to meet the everchanging communications and public relations needs of the membership; and be it further

RESOLVED, That the Community Awareness Resource and Education (CARE) Program, established in 1989 and reaffirmed in 1993 to (1) increase the public's confidence in their personal physician, both clinically and professionally and as a patient advocate for health care needs, (2) establish the Tennessee Medical Association as a significant resource for providing accurate, in-depth medical information to key target audiences, and (3) persuade and motivate physicians to take personal interest in the specific issues and concerns of their patients, be continued with all goals and objectives intact.

REFERENCE COMMITTEE B—recommended adoption.

ACTION: ADOPTED

RESOLUTION NO. 3-00

Reaffirmation and Modification of Resolution No. 10-93 (State and/or Federal Malpractice Coverage for Free Medical Services)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association continue to petition the Tennessee General Assembly, and coordinate with the American Medical Association's efforts with the Congress, to institute malpractice coverage and immunity from litigation for those licensed physicians who provide patients with free health care treatment and services.

REFERENCE COMMITTEE B—recommended adoption.

ACTION: ADOPTED

RESOLUTION NO. 6-00

Reaffirmation of Resolution No. 18-93 (Electrolysis by Unlicensed Personnel)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association oppose the performance of electrolysis by unlicensed personnel; and be it further

RESOLVED, That the Tennessee Medical Association instruct its Legislative Committee to oppose state legislation which permits the performance of electrolysis by unlicensed personnel.

REFERENCE COMMITTEE A—recommended nonadoption.

ACTION: NOT ADOPTED

RESOLUTION NO. 10-00

Reaffirmation of Resolution No. 34-93 (Use by "Third Party Payors' [Insurance Companies, HMOs, Etc.] of "Reviewers" Who Are Neither Licensed Nor Regulated by the State of Tennessee)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

RESOLVED, That the Tennessee Medical Association pursue the passage of legislation which will require third party payors doing business in Tennessee to identify the names and specialties of their medical reviewer(s) both to their insured patients and to the treating physician(s) when the third party payor refuses or rejects an insured patient's request for coverage; and be it further

RESOLVED, That the Tennessee Medical Association pursue the passage of legislation which will require any individual(s) or group(s) outside of Tennessee who review and/or advise third party payors regarding the eligibility of patients for health coverage be licensed or otherwise regulated by the state of Tennessee for such purpose(s); and be it further

RESOLVED, That the Tennessee Medical Association pursue passage of legislation which will require third party payors doing business in Tennessee to have a medical director residing in Tennessee with a Tennessee medical license.

REFERENCE COMMITTEE A—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 12-00

Enhancement of the TMA Web Site

DAVID R. GINN, MD, DELEGATE, SULLIVAN COUNTY MEDICAL SOCIETY

Whereas, The Internet is causing a revolution in our way of communicating and doing business; and

Whereas, Most physicians in Tennessee have access to Internet services; and



Outgoing President Dr. J. Chris Fleming and Mrs. Fleming at President's Reception

Whereas, Physician time and travel resources seem to be ever more limited; and

Whereas, It is critical for our member physicians not only to be informed in a timely fashion of issues of importance regarding the Tennessee Medical Association (TMA) and proposed legislation, but to be able to give timely feedback to the TMA and legislators regarding these issues. Now, therefore be it

RESOLVED, That the Tennessee Medical Association Board of Trustees study the feasibility of enhancing our Web site and include component medical society links in order to make the Web site more interactive and capable of polling the membership regarding policy and legislative issues; and be it further

RESOLVED, That the Tennessee Medical Association Web site offer timely reports of issues vital to the membership, especially during sessions of the Tennessee Legislature.

REFERENCE COMMITTEE C—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 13-00

Joint Meeting Between the TMA and Medical Specialty Societies

JILL F. CHAMBERS, MD, DELEGATE NASHVILLE ACADEMY OF MEDICINE

Whereas, All statewide medical specialty societies that meet the requisite criteria established by the House of Delegates are eligible for representation in the Tennessee Medical Association (TMA) House of Delegates; and

Whereas, In years past medical specialty societies met in conjunction with the TMA annual meeting affording an opportunity for communication, cooperation, and collegiality among specialties; and

Whereas, This may well increase the interest in and attendance of the TMA annual meeting, and thereby strengthen our organization. Now, therefore be it

RESOLVED, That the Tennessee Medical Association Board of Trustees encourage the Tennessee medical specialty societies to conduct their annual meeting in conjunction with the Tennessee Medical Association annual meeting.

REFERENCE COMMITTEE C—recommended referral to the Board of Trustees for action.

ACTION: REFERRED TO BOARD OF TRUSTEES FOR ACTION

RESOLUTION NO. 14-00

TennCare Online

EDWARD W. CAPPARELLI, MD, DELEGATE COCKE COUNTY MEDICAL SOCIETY

Whereas, Thousands of hours are wasted by physician staff members on a daily basis waiting to talk to TennCare operators to verify patient status, locate participating specialists, precertify procedures or tests, or get prior authorization on medications; and

Whereas, The great majority of these requests are approved following protracted telephone waits; and

Whereas, This leads to unnecessary treatment delays and increased cost and frustration to physicians, staff members, and patients; and

Whereas, It has been clearly shown in the private sector that online computerization has incredibly sped up turn-around time and lowered costs. Now, therefore be it RESOLVED, That the Tennessee Medical Association strongly encourage the TennCare Bureau and its component managed care organizations to diligently and swiftly work towards putting TennCare online for participating physicians, hospitals, pharmacies, and other providers; and be it further

RESOLVED, That the TennCare Bureau and its component managed care organizations put into place an online verification system to include, but not be limited to, patient status verification, real-time physician participation lists, up-to-the-minute formularies, prior approval requirements, procedures and processes for medications, and other preauthorization and/or precertification requirements and processes.

REFERENCE COMMITTEE A—recommended adoption.

ACTION: ADOPTED

RESOLUTION NO. 15-00

Tennessee Birth-Related Neurological Injury Compensation Program

JESSE C. WOODALL, JR., MD, DELEGATE MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, The goal of this resolution is to provide much needed care to a group of children with birth-related neurological injuries that fall outside the usual health insurance coverage; and

Whereas, Much of this care is now involved in physician/hospital/plaintiff (patient) torts which consume financial resources needed for the care of these children; and

Whereas, It would be a better use of the resources of all parties concerned (e.g., patient, hospital, physician, insurance company) to provide the needed care for these children. Now, therefore be it

RESOLVED, That the Tennessee Medical Association, along with the Tennessee Hospital Association (and other related hospital associations in the state), and the liability insurance companies for the physicians and hospitals, request that the state (and possibly federal) government establish a patient care program to provide care to children with birth-related neurological injuries; and be it further

RESOLVED, That any patient care program established to provide care to children with birth-related neurological injuries be based on a similar program in Virginia, which functions well in providing care to these needy patients.

REFERENCE COMMITTEE B—recommended adoption.

ACTION: REFERRED TO BOARD OF TRUSTEES



Incoming President Dr. Barrett F. Rosen and Mrs. Rosen at President's Dinner

RESOLUTION NO. 16-00

Limited Scope Practitioners

LEE R. MORISY MD, DELEGATE
MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, Limited scope practitioners (LSPs) have recently tried to legislate a change in the scope of practice; and

Whereas, The use of the term "doctor" is used by many profes-

Whereas, LSPs are often presented to a person seeking health care as "doctors" or want to be treated in a similar manner as physicians. Now, therefore be it

RESOLVED, That the Tennessee Medical Association explore the options of addressing confusion by patients when seeking health care by requiring all health care givers to identify their degree and, where applicable, supervising medical physician; and be it further

RESOLVED, That patients be informed of the degree and, where applicable, supervising medical physician of the limited scope practitioner to aid them in making choices before receiving care.

REFERENCE COMMITTEE A—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 17-00

Facilitating the Resolution of Scope of Practice Issues

LEE R. MORISY, MD, DELEGATE
MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, Over the last 20 years the Tennessee Medical Association (TMA) has faced an increasing onslaught from allied health practitioners seeking to obtain by legislative fiat the right to practice varying levels of medicine; and

Whereas, Although the Tennessee General Assembly in 1830 created the TMA as a means of both educating the state's physicians and bringing them together to share their research, the legislature also assigned the TMA the task of protecting the integrity of the practice of medicine; and

Whereas, This historic task has become increasingly difficult and tenuous given the allied health practitioners' claims that physicians are denying them entry into the health market, not because of educational deficiencies, but because physicians are trying to protect their domain; and

Whereas, State legislators understand they lack the scientific expertise to define, based on asserted education, who may safely practice medicine; and

Whereas, Invariably, scope of practice bills are debated and set for passage in small subcommittees that have difficulty in fairly debating the merits of the claims pressed by practitioners seeking expanded licenses; and

Whereas, Increasingly, as some limited license practitioners gain footholds in medicine, patients do not understand they are not physicians, leaving patients confused; and

Whereas, Both the TMA and specialty societies devote over half of their collective legislative resources toward scope of practice issues; and

Whereas, There needs to be a decision mechanism to legally define the proper licensure scope of allied health practitioners so that patients get the highest quality care available. Now, therefore be it

RESOLVED, That the Tennessee Medical Association convene a special task force composed of specialty society representatives and other stake holders to design a public mechanism for defining what scope of licensing should be for allied health practitioners that

would include education levels, patient safety, long-term outcomes, and peer reviewed data as final criteria for setting license scope definitions; and be it further

RESOLVED, That a joint Tennessee Medical Association and specialty society leadership task force, in devising a new public mechanism for determining the proper scope of licenses for allied health practitioners, ensure that when expanded practice scope laws are passed the practitioners be required to fully disclose their professional status, title, and educational background to any patients to whom they offer treatment; and be it further

RESOLVED, That a joint Tennessee Medical Association and specialty society leadership task force, in devising a new public mechanism for determining the proper scope of licenses for allied health practitioners, report back to the Board of Trustees, the Committee on Legislation, and the House of Delegates and other stake holders on its findings and, if deemed appropriate, the Tennessee Medical Association report these findings to the legislative and executive branches of Tennessee government for implementation.

REFERENCE COMMITTEE A—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 18-00

Pharmacists Giving Injections

BOARD OF TRUSTEES, KNOXVILLE ACADEMY OF MEDICINE

Whereas, The Tennessee Pharmacy Practice Act of 1996 has been interpreted to allow pharmacists to give influenza injections; and

Whereas, There is no mention of a physician order requirement in the following Pharmacy Board Guidelines (adopted July 23, 1999), which outline what a pharmacist must do to offer patients a pharmacy-based immunization program:

1. Complete an immunization-training program recognized by the Board of Pharmacy.

2. Have an emergency plan protocol to deal with emergencies when giving immunizations. An example would be a written plan that alerts a local physician or emergency center that you will be giving immunizations and notifies them of the particular date and time you are offering the service.

3. Notify appropriate health care professionals that immunizations are being offered in your facility, including health departments, physicians' offices, etc.

 Be basic cardiac life support or cardiopulmonary resuscitation certified, at a minimum.; and

Whereas, The Pharmaceutical Manufacturers Association (PhRMA) after researching the Tennessee Pharmacy Practice Act of 1996 stated "Most importantly, we are still lacking a clear definition of the scope of pharmacy practice and a concrete listing of pharmacists' responsibilities and the limits of their authority. Until that task is completed the rules should not be adopted."; and

Whereas, The scope of practice of medicine includes administering injections or overseeing the procedure, and immunizations, lab work functions and/or diagnoses are not within the scope of practice of a pharmacist and should not be permitted. Now, therefore be it

RESOLVED, That the Tennessee Medical Association actively pursue legislation that would forbid pharmacists acting independently or under the direction of a corporate physician not licensed in the State of Tennessee to administer any injections or practice any of the functions of medicine beyond the scope of training and licensing of a pharmacist.

REFERENCE COMMITTEE A-recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

SUBSTITUTE RESOLUTION NO. 19-00 Accuracy in Advertising

BOARD OF TRUSTEES, KNOXVILLE ACADEMY OF MEDICINE

RESOLVED, That the Tennessee Medical Association develop and support legislative efforts to regulate health care advertising and listings of providers commensurate with licensure, scope of practice, and board certification; and be it further

RESOLVED, That the Tennessee Medical Association encourage and support the Tennessee Health Related Boards in enforcing accuracy and clarification of specialty and/or subspecialty boards and board certification claims; and be it further

RESOLVED, That this resolution be forwarded to the American Medical Association through the Tennessee Medical Association delegation, with appropriate wording changes made (American Medical Association instead of Tennessee Medical Association), and that it also be forwarded to the Federation of State Medical Boards for its information and action.

REFERENCE COMMITTEE B—offered Substitute Resolution No. 19-00 to replace original Resolutions No. 19-00 and No. 20-00; recommended adoption of Substitute Resolution No. 19-00.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 20-00 Truth in Physician Advertising

BOARD OF TRUSTEES, KNOXVILLE ACADEMY OF MEDICINE

REFERENCE COMMITTEE B—offered Substitute Resolution No. 19-00 to replace original Resolutions No. 19-00 and No. 20-00; recommended adoption of Substitute Resolution No. 19-00.

ACTION: (Was replaced with Substitute Resolution No. 19-00 which was adopted as amended.)

RESOLUTION NO. 21-00 Annual Meeting Venue

LEE R. MORISY, MD, DELEGATE
MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, The essence and importance of the Tennessee Medical Association (TMA) House of Delegates rests on maximum attendance and participation of the delegates; and

Whereas, Historically, attendance has been highest when the annual meeting is held in Middle Tennessee; and

Whereas, The headquarters of the TMA is located in Nashville, and its environs would limit meeting preparation and reduce travel time and expense; and

Whereas, Middle Tennessee contains many facilities suitable for lodging, dining, and carrying out the business of the annual meeting. Now, therefore be it

RESOLVED, That henceforth the annual meeting of the Tennessee Medical Association be held every year in Middle Tennessee; and be it further

RESOLVED, That the practice of holding the annual meeting of the Tennessee Medical Association in Middle Tennessee every year be subject to any current contractual arrangements; and be it further RESOLVED, That the Tennessee Medical Association Board of Trustees have the authority to deviate from the practice of holding the annual meeting of the Tennessee Medical Association in Middle Tennessee every year to an alternate site in the event of unusual circumstances.

REFERENCE COMMITTEE C—recommended referral to the Board of Trustees for action.

ACTION: REFERRED TO BOARD OF TRUSTEES FOR ACTION

RESOLUTION NO. 22-00 Annual Meeting Timetable

LEE R. MORISY, MD, EX-OFFICIO DELEGATE MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, The great majority delegates to the Tennessee Medical Association (TMA) House of Delegates (HOD) are physicians engaged in patient care; and

Whereas, Patients benefit from their physicians' attention and may suffer from their absence; and

Whereas, Each day away from patient care adds to the burden of those physicians' attending the annual meeting and those covering for them; and

Whereas, Many airlines require a Saturday night stay to qualify for discounted air fare; and

Whereas, The last few years have demonstrated that the business of the TMA can be adequately addressed in one and one-half days; and

Whereas, Early Saturday morning assembly of the final session of the HOD can put extreme pressure on the staff to type, assemble, and distribute the reports of the reference committees. Now, therefore be it

RESOLVED, That the opening session of the Tennessee Medical Association House of Delegates be Saturday morning followed by reference committee hearings; and be it further

RESOLVED, That changing the opening session of the Tennessee Medical Association House of Delegates to Saturday morning be subject to any current contractual arrangements.

REFERENCE COMMITTEE C—recommended referral to the Board of Trustees for action.

ACTION: REFERRED TO BOARD OF TRUSTEES FOR ACTION



Speaker of the House of Delegates Dr. Sam J. Williams III, Chattanooga



AMA President-Elect Dr. Randall Smoak, speaker at the House of Delegates

RESOLUTION NO. 23-00

Teen Smoking

RICHARD J. DEPERSIO, MD, DELEGATE KNOXVILLE ACADEMY OF MEDICINE

Whereas, Smoking addiction often begins during the teen years; and Whereas, Twenty-eight percent (28%) of all teenagers are ages 18 and 19 and can legally purchase tobacco products; and

Whereas, Current legislation does not permit persons under the age of 18 to purchase tobacco products while many young people between the ages of 18 and 21 become addicted to smoking. Now, therefore be it

RESOLVED, That the Tennessee Medical Association support legislation that would make it illegal to sell tobacco products to anyone under the age of 21.

REFERENCE COMMITTEE B—recommended adoption.

ACTION: ADOPTED

RESOLUTION NO. 24-00

Tennessee General Assembly Doctor of the Day Program

DAVID K. GARRIOTT, MD, DELEGATE SULLIVAN COUNTY MEDICAL SOCIETY

Whereas, The Tennessee Medical Association (TMA), in its advocacy for patient care and its physician members' ability to provide it, needs to enhance its presence in the General Assembly; and

Whereas, We have a volunteer Doctor-of-the-Day Program, which is underserved by TMA members for a variety of reasons; and

Whereas, Physicians are constantly playing defense to prevent the medically unwarranted expansion of scope of practice by nonmedical doctors. Now, therefore be it

RESOLVED, That the Tennessee Medical Association develop a contract part-time position with a medical doctor(s) trained as a generalist (FP, IM, EM) or medical doctors of other specialties who are experienced and capable of treating a wide range of medical problems; and be it further

RESOLVED, That the Tennessee Medical Association contract doctor-of-the-day will care for the on-site medical problems of legislators and their staffs Tuesdays through Thursdays when the legislature is in session working up to eight hours each of those days in the same manner as the current program provides; and be it further



Outgoing chairman of the Board Dr. James D. King, Selmer



Incoming chairman of the Board Dr. J. Fred Ralston Jr, Fayetteville

RESOLVED, That the volunteer Doctor-of-the-Day Program will continue with a wider array of specialists participating and benefitting from learning how our legislature functions while being a resource for the Tennessee Medical Association contract medical doctor; and be it further

RESOLVED, That the Tennessee Medical Association contract doctor-of-the-day, or volunteer doctor-of-the-day, will frequently give noon education seminars on medical diseases.

REFERENCE COMMITTEE C—recommended referral to the Board of Trustees.

ACTION: REFERRED TO BOARD OF TRUSTEES

RESOLUTION NO. 25-00

Providing Health Insurance for Minimum Wage Workers

THOMAS C. GETTLEFINGER, MD, DELEGATE MEMPHIS & SHELBY COUNTY MEDICAL SOCIETY

Whereas, A significant percentage of the American working population is uninsured, particularly those working at minimum wage levels. Now, therefore be it

RESOLVED, That the next increase in the federal minimum wage be applied to health insurance for those minimum wage earners not currently covered; and be it further

RESOLVED, That the American Medical Association debate the feasibility of legislation mandating that the next increase in the federal minimum wage be applied to health insurance for those minimum wage earners not currently covered; and be it further

RESOLVED, That the next increase in the federal minimum wage be applied to health insurance for minimum wage earners not currently covered and be purchased from the private market, with the extent of coverage determined by the amount of money available from this increase.

REFERENCE COMMITTEE A—recommended adoption.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 26-00

TennCare Fair Payment

EDWARD W. CAPPARELLI, MD, DELEGATE COCKE COUNTY MEDICAL SOCIETY

Whereas, TennCare reimbursement levels to physicians currently fall far below payments made by Medicaid for the same services and procedures ten years ago; and

Whereas, TennCare reimbursement levels to physicians fall far below current Medicaid reimbursement levels in surrounding states; and

Whereas, Physicians are dropping out of the TennCare program at alarming rates due to extremely low reimbursement levels, leading to an ever shrinking network of available primary care physicians and specialists to care for the 1.3 million TennCare patients. Now, therefore be it

RESOLVED, That the Tennessee Medical Association strongly encourage the TennCare Bureau and its component managed care organizations to utilize actuarially sound reimbursement rates from an independent source that reflects the actual costs for rendering services to patients.

REFERENCE COMMITTEE A—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 27-00

HCFA Regulations Concerning Restraint of Patients

JOHN B. BOND, MD, NASHVILLE ACADEMY OF MEDICINE

Whereas, The Health Care Financing Administration (HCFA) placed in effect rules and regulations concerning the use of patient restraints, including mechanical and chemical restraints, on August 2, 1999 (FR Doc. 99-16543 Filed 6-24-99); and

Whereas, These rules and regulations severely restrict the good, proper, and necessary judgment of physicians and nurses in the safe care of patients who may require restriction, sedation, or seclusion (isolation); and

Whereas, These rules and regulations, because of their narrow and legalistic confines, if fully and literally enforced, can and will contribute to injury and possibly death of individual patients and injury to others in the institutional or hospital setting; and

Whereas, These rules and regulations appear to have been formulated through ignorance of and disregard for the clinical situations in which restraint of a patient may be necessary for that patient's safety and safety of other patients; and

Whereas, These rules and regulations are impractical to the point that patient care can deteriorate (the inability of a physician to have face-to-face interaction in the time required or the use of sedatives and psychotropic drugs or the seclusion of a patient to prevent contagion to others in a hospital or institutional situation or seclusion of an immunosuppressed patient to prevent infection from others); and

Whereas, Physicians, through fear of punishment, may fail to order proper and necessary restraints because they cannot comply with these regulations; and

Whereas, There is a proper place for reasonable rules and regulations concerning restraints. Now, therefore be it

RESOLVED, That the Tennessee Medical Association call for the Secretary of Health and Human Services to immediately rescind the rules and regulations concerning restraints (FR Doc. 99-16543 Filed 6-24-99); and be it further

RESOLVED, That this resolution in its entirety be communicated to the Health Care Financing Administration, the American Medical Association, the Tennessee Congressional Delegation, and the President and Vice-President of the United States by June 1, 2000.

REFERENCE COMMITTEE B—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 28-00

Coordination of the TMA Annual Meeting With the TMA Alliance Annual Meeting

JOHN B. BOND, MD, NASHVILLE ACADEMY OF MEDICINE

Whereas, The Tennessee Medical Association Alliance (TMAA) is our best friend, helper, and partner in our efforts to achieve good health for all Tennesseans; and

Whereas, In the past, the Tennessee Medical Association (TMA) and the TMAA have held their meetings concurrently in the same place, to the mutual benefit of both bodies; and

Whereas, The TMA should continue to enhance, preserve, and promote the relationship between it and our best friend, helper, and partner. Now, therefore be it

RESOLVED, That the Tennessee Medical Association Board of Trustees and staff coordinate its efforts with the Tennessee Medical

Association Alliance in establishing the place and time for their respective annual meetings, so that both bodies can meet concurrently at the same place, for the benefit of all.

REFERENCE COMMITTEE C—recommended referral to the Board of Trustees for action.

ACTION: REFERRED TO BOARD OF TRUSTEES FOR ACTION

RESOLUTION NO. 29-00

Reaffirmation and Substitution of Resolution No. 37-93 (TennCare Medicaid Reform Proposal)

JAMES D. KING, MD, CHAIRMAN, TMA BOARD OF TRUSTEES

Whereas, TennCare is now in its seventh year of operation; and Whereas, TennCare is structurally flawed and continues to face serious threats to its survival which include inadequate supervision and oversight from the state, undercapitalized MCOs, failing networks resulting from inadequate state oversight, inexcusable administrative hassles from TennCare MCOs, and low reimbursement; and

Whereas, The HCFA waiver for the TennCare program expires December 31, 2001; and

Whereas, The successful redesign of TennCare depends largely on input and advice from physicians and other health care providers across the state who form the backbone of TennCare; and

Whereas, Because physician input is vital, the Tennessee Medical Association, through its TennCare Task Force which was chaired by J. Fred Ralston, MD, worked diligently to develop an effective reform proposal to TennCare; and

Whereas, These recommendations as set forth below have been sent to the current administration and should now comprise the updated Tennessee Medical Association policy on TennCare. Now, therefore be it

RESOLVED, That the Tennessee Medical Association, as part of its ongoing TennCare Policy, urge the State of Tennessee to:

- Ensure that all stakeholders are represented in policy decisionmaking;
- Require an annual actuarial study verified by an independent source and fund the program accordingly;
- 3) Maintain enhanced Administrative Services Organization, Managed Care Organization, and successor program oversight;
- 4) Ensure that the state bears its fair share of programmatic and financial risks, instead of simply dumping risk on stakeholders;
 - 5) Ensure that matching fund opportunities are achieved;
- 6) Preclude behavioral and mental illness carve-outs that bifurcate care;
 - 7) Strive to increase patient access to care;
 - 8) Pay providers promptly for patient care services;
- 9) Ensure providers are paid for past claims when an Administrative Services Organization or Managed Care Organization bankrupts;
- 10) Establish a single, broader formulary containing common and representative classes of drugs; and
- 11) Consistently review uninsurables' status and all eligibility parameters; and be it further

RESOLVED, That the Tennessee Medical Association work with other health care providers in Tennessee, as deemed reasonable and appropriate, to ensure that any reform of or replacement to TennCare take into account and include the concerns of organized medicine.

REFERENCE COMMITTEE C—recommended adoption as amended.

ACTION: ADOPTED AS AMENDED

Additional Resolutions Recommended To Sunset

The TMA House of Delegates annually adopts resolutions to become policy and they are reviewed after seven years to determine if the policy is to continue as is, be modified, or allow to sunset. Many policies implemented during the course of the year following their adoption by the House of Delegates or in subsequent years become obsolete, moot, or outdated prior to their year to sunset. In order to efficiently maintain relative policy of the House of Delegates, the following resolutions adopted in years 1994-1999 were recommended to sunset by the House of Delegates in 2000.

1993 Adopted Resolutions to Sunset

Resolution No. 1-93—Reaffirmation of Resolution No. 5-86 Diagnosis Related Group (DRG) Urban/Rural Designation

Resolution No. 4-93

Reaffirmation of Resolution No. 21-86

Support of Tort Reform Proposals (Permanent Policy)

Resolution No. 7-93

Tuberculosis

Resolution No. 9-93

Health Education (TMA Supports Current Legislation)

Resolution No. 12-93

Regulating the UCR Calculation

Resolution No. 13-93

Support of the American Medical Association Guidelines on Self-

Referral (Permanent Policy Through CEJA)

Resolution No. 20-93

Quality of Mammography (At the Urging of TMA, BME Has Ac-

complished this Legislation)

Resolution No. 27-93

Publishing Hospital Charges

Resolution No. 39-93

Impaired Physician Program Funding

1994 Adopted Resolutions to Sunset

Resolution No. 20-94

Physicians for Public Service (Ongoing Activity)

1995 Adopted Resolutions to Sunset

Resolution No. 14-95

Membership Recognition Awards Programing (Not Relevant in Light of Other Plans in Place)

1996 Adopted Resolutions to Sunset

Resolution No. 12-96

Human Immunodeficiency Virus (HIV) Testing of All Pregnant Women (State Law)

1997 Adopted Resolutions to Sunset

Resolution No. 16-97

Physician-Assisted Suicide (AMA CEJA Policy)

Resolution No. 18-97

Uniform Data Form (Ongoing Activity with TPQVO)

Resolution No. 25-97

Childhood Immunizations

Resolution No. 28-97

Match American Medical Resources with Global Health Needs

Resolution No. 30-97

Disclosure of TennCare Funds by Managed Care Organizations (Now Law)

1998 Adopted Resolutions to Sunset

Resolution No. 8-98

TMA Annual Dues Reallocation (Accomplished)

Resolution No. 10-98

Specialty Society Representation in Tennessee Medical Association House of Delegates (Accomplished by Bylaw)

Resolution No. 17-98

Reimbursing Nurse Practitioners

Resolution No. 20-98

Continuity of Health Care Stability of Physician /Patient Relationships

Resolution No. 25-98

Abuses by Managed Care in Tennessee (Part of Legislative Package)

Resolution No. 27-98

Prompt Payment by Managed Care Organizations

Resolution No. 31-98

Patient Information Posters Pilot Project

Resolution No. 33-98

Opposition to Medicare Evaluation and Management Documentation Guidelines

Resolution No. 34-98

Paternal Acknowledgment

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

HELP US TO HELP

Call the TMF Physicians Health Program at (615) 665-2516 in Nashville. Telephone message service available around the clock.

It makes the invisible, visible



to make the inoperable, operable



and what was once impossible, possible



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Annual Award Presentations

Outstanding Physician Awards

The Outstanding Physician Award is presented annually by the members of the TMA House of Delegates and is an outward symbol of honor and recognition of a physician's contribution to the advancement of public welfare and medical science during his lifetime.



Dr. Nickell

During his lengthy career in Middle Tennessee, Lawrence R. Nickell, MD, Columbia, has served as a dedicated physician leader for many health organizations. He was chief of staff of Maury County Hospital, president of the Maury County Medical Society, president of the Tennessee Radiological Society, medical director of the CSCC School of Radiological Technology, and has been a multiple-term advisor of the Radiological Health Service of the State of Tennessee as a member of the Liaison Committee of the Tennessee Radiological Society. Dr. Nickell also founded the Columbia Radiology Group.

Twice-wounded in World War II, this decorated veteran earned five campaign stars, the Bronze Star Medal, and a Purple Heart with Oak Leaf Cluster. He served in the entire European campaign, from the invasion of Normandy to the capture of the Rhine.

After the war, Dr. Nickell attended the University of Louisville, earning an MD degree in 1952; the University also awarded him with the Pitkin Award for the highest four-year grade point average. He completed his radiology residency at the University of Texas and his postgraduate training at the Oak Ridge Institute of Nuclear Studies.

Dr. Nickell has been a medical volunteer in radiology at St. Croix Hospital in Haiti, Miraj Medical Center in India, and McCormick Hospital in Thailand. In addition, he went on six tours of duty with St. Jude Hospital in St. Lucia.

Dr. Nickell was nominated for this award by the Maury County Medical Society.



Dr. Woodall

Dedication. Perseverance. Self-sacrifice. Jesse C. Woodall, Jr., MD, Memphis, has shown these attributes in numerous ways over many years, as he has championed to protect physicians and their patients in our local, state, and national arenas. Dr. Woodall is currently chairman of the Legislative Committee of the Tennessee Medical Association. He has also served as chairman of the Maternal & Childcare Committee, and Special Medical Issues Committee

For the Memphis & Shelby County Medical Society, Dr. Woodall has served as board member, vice-president, president-elect, and in 1994, president. He is past president and Advisory Committee member of the Tennessee Obstetrics and Gynecological Society, as well as past secretary and president of the Memphis Obstetrics and Gynecological Society.

Dr. Woodall has had experience teaching gynecological procedures to the residents in training since he completed his residency. He received an award in Excellence in Clinical Teaching of Residents in obstetrics and gynecology, University of Tennessee, Memphis, College of Medicine, 1996.

He received his medical degree from the University of Tennessee College of Medicine in 1964. He interned at Walter Reed Hospital in Washington, DC, and completed his residency in obstetrics and gynecology at the University of Tennessee, Memphis. Dr. Woodall also spent time in the United States Army as an active flight surgeon.

Dr. Woodall was nominated for this award by the Memphis & Shelby County Medical Society.

Community Service Awards

Since 1976, the physician members of the Tennessee Medical Association have recognized persons or organizations outside of medicine who contribute significantly to the advancement of public health in their respective communities.

Alive Hospice. Founded in 1975, Alive Hospice is a non-profit organization that provides home-based medical and counseling services for the terminally ill. Its programs help patients of all ages who suffer from fatal illnesses, including heart disease, cancer, AIDS, and Alzheimer's disease. Their commitment to providing patients dignity in dying and aftercare for their families through grief and bereavement counseling has been appreciated and applauded by more than 1,100 families in Middle Tennessee this year alone.

Furthering the hospice vision, Alive Hospice will open a new 30-bed residence in the summer of 2000 for the care of those without caregivers and those whose caregivers need a respite. The home will provide a full continuum of care. Although most patients have some type of insurance, Alive Hospice is committed to offering care regardless of the patient's ability to pay. These patients are Middle Tennesseans from all socioeconomic, ethnic, and religious backgrounds.

Alive Hospice was nominated for this award by the Nashville Academy of Medicine.

Healing Hands Health Center. Since opening in October 1997, Healing Hands has provided over 2,700 office visits to nearly 1,300 people. The Center provides free health care for the residents of greater Bristol, who would not have access to care otherwise. Patients served by Healing Hands are low-income workers and their families. These people have no health insurance, or have needs not covered by TennCare, Medicaid, or Medicare.

Thirty-seven volunteer physicians, dentists, optometrists, ophthalmologists, opticians, chiropractors, podiatrists and counselors, supported by 31 volunteer nurses and other health care professionals, have donated more than 2,500 hours of their time to provide care at Healing Hands. Lay volunteers have given over 5,000 hours of their time.

Healing Hands Health Center was nominated for this award by the Sullivan County Medical Society.

The Assisi Foundation of Memphis, Inc. The Assisi Foundation has made a visible difference in the Memphis community by making deliberate and generous grants, such as the grant for more than \$1 million to the "Growing Healthy" program, a health education curriculum used extensively in the Memphis City elementary schools. Many of the health and education agencies and services now available to our community simply would not exist in their current forms, or possibly at all, without The Assisi Foundation's interest and support. The organization's cumulative giving from May 1994 through December 1999 was \$35,987,461. The Assisi Foundation's 1994-1999 cumulative giving in the areas of health care and education were \$15,377,586 and \$11,774,547, respectively.

Other projects in the areas of community enhancement (\$6,043,839), religion and ethics (\$385,017), civic and cultural endeavors (\$2,000,000), and funding direct charitable activities (\$406,472) were also beneficiaries of The Assisi Foundation's guidance and generosity within that same time period. The Assisi Foundation was nominated for this award by the Memphis & Shelby County Medical Society.

Distinguished Service Award

Each year since 1963, the Distinguished Service Award has been presented by the TMA Board of Trustees to exemplary members of the Association for their notable achievements during the last calendar year.



Chapman

John E. Chapman, MD, Dean of the Vanderbilt University School of Medicine, was nominated for the Distinguished Service Award by the Nashville Academy of Medicine for his professional excellence and dedication to the profession, as proven by his personal contributions of time and leadership to many notable medical organizations. He has been Foreign Adjunct Professor of the Karolinska Institute in Stockholm, Sweden, and serves as Director of the American Division of the Karolinska/Vanderbilt international student exchange program in medical education with international affiliations in Hannover, West Germany; Paris, France; and London, England.

At the national level, for the American Medical Association, Dean Chapman is a founding member of the Section on Medical Schools, and past member, chairman, and current chair of United States Medical Licensing Examination.

Additionally, he is the author of numerous publications with reference to toxicology, clinical pharmacology, medical administration and medical education; Fellow of the Royal Society of Medicine in London; Fellow of the American College of Physicians; member of the Association of American Medical Colleges' Council of Deans and current longest tenured U.S. medical dean; member of the Accreditation Council for Graduate Medical Education; member of the National Board of Medical Examiners; Regent, American College of Clinical Pharmacology; member of the Liaison Committee on Specialty Boards; and advocate for medical education via attention to student learning environment.

In addition to his present role as Dean of Vanderbilt University School of Medicine, he is a professor of Pharmacology, professor of Medical Administration, and chairman of the Division. He has graduated 67% of the living Vanderbilt medical graduates.

Dr. Chapman received his medical degree from the University of Kansas School of Medicine in 1958. In 1987, he received an Honoris Causa medical degree from the Karolinska Institute, Stockholm, Sweden. He received two bachelor of science degrees, one in education and one in biology and chemistry from Southwest Missouri State College in 1954.

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Kimberly B. Shannon, MD, Murfreesboro

Warren County Medical Society

David C. Beckner, MD, Bristol

Steven L. Castle, DO, Kingsport

Wilson County Medical Society

James M. Bachstein, MD, Lebanon

In Memoriam

Jere Michael Disney, MD, age 59. Died May 6, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

John Wesley Howe, MD, age 64. Died May 7, 2000. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

Carl George Landsee, MD, age 82. Died May 2, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during April, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

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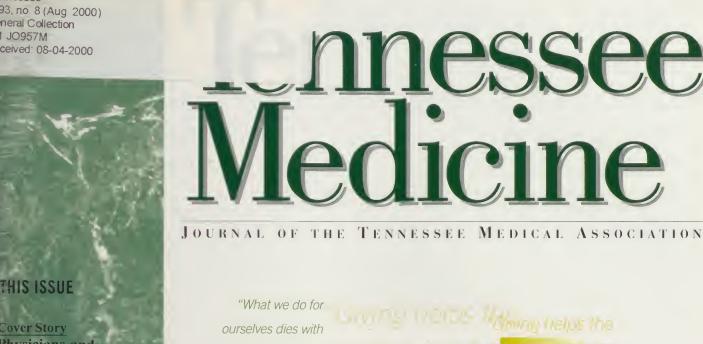


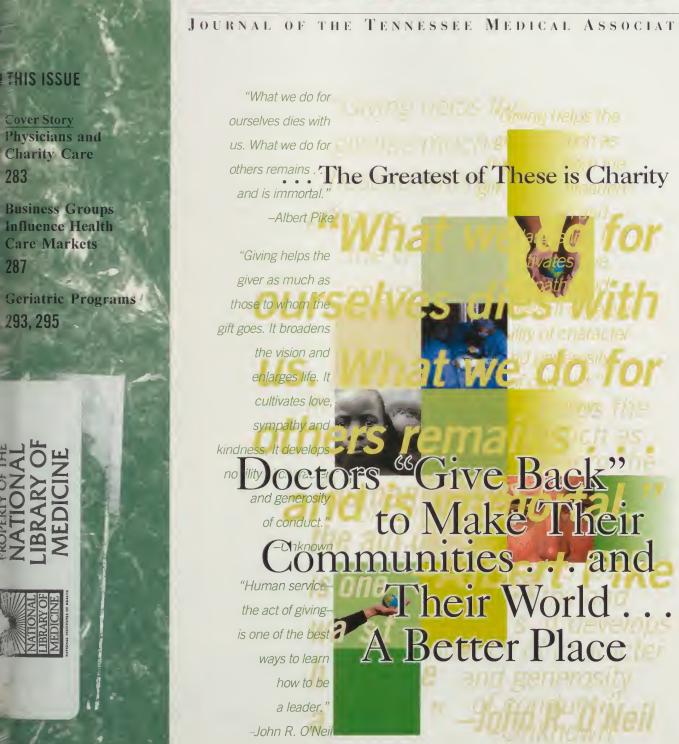


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Editor John B

John B. Thomison, MD

Assistant Editor Robert W. Ikard, MD

Managing Editor

Jean Wishnick

Business Manager Donald H. Alexander

Sr. V.P.—Communications
Russ Miller

Advertising Representative Jean Wishnick

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President's Comments



Barrett F. Rosen, MD

Rebuilding the Box

As we move into this millennium, your Tennessee Medical Association Board has recognized the need to look for ways to make this organization more relevant to members, both current and potential. With this in mind we have created a Futures Task Force to address these issues. This group, representing what is considered to be a cross-section of Tennessee physicians, has already had a very productive start to recommend steps we will need to take to transform the TMA into a society that will be able to grow and meet the needs of the future. The Board is committed to try to push forward as rapidly as possible with this process.

The task force began with the charge to think "outside the box," and the early reports indicate that they took this to heart. Preliminary suggestions include a complete restructuring of the organization. There is no question that anything we do will require a major expansion of our electronic/technology programs. We must be able to open lines of electronic communication which can be tailored to each member's needs and desires. This is not nearly enough, however. We may need to transform the entire organization into a "virtual" society where most of the activities, communication, and even governance can occur "on line." I will not be surprised if we find that "venerable institutions" such as the House of Delegates gets replaced by a new entity that allows much wider participation by members while reducing the cost and time requirements. We need to have the ability to respond to situations much more rapidly than we can now.

The task force is also looking at ways to better understand what programs and services Tennessee physicians will require in the future. We need to develop better ways of learning what our members want and then do a better job of communicating what we offer. Electronics will probably be an important part of these activities as well. Including local societies that can participate will obviously be crucial to success.

While legislative activities will always be a very important part of what the TMA does, we must become better at this so as to make sure we represent our constituency. We must find ways to better coordinate this work with the various specialty societies, which are also becoming active in this arena. By making this a true team effort, success will come more readily. If we can get the message across that we represent the "conscience in health care—the physician working for the good of our patients and the collective good of all citizens," then we can hold our heads high and be proud of who we are. As I said a few months ago, we must always ask "Is it good medicine?"

I can promise that your Board is committed to make this organization "leaner, stronger" and more receptive to the needs of *all* physicians no matter who they may be. We must become an *inclusive* organization that all of us can be comfortable belonging to and supporting. We will be telling you about this process in the coming months and will desperately need *everyone's* input if we are to be successful. I can assure you that I personally am committed to this concept and thank you in advance for your help.

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John B. Thomison, MD

... The Greatest of These Is Charity

When I was 11 years old I had an appendectomy. I had drop ether for anesthesia, which made me sick for several days, and I was kept in bed for 10 days. I was in a private room in the old Baroness Erlanger Hospital in Chattanooga. There were open wards in those days, and many charity patients. My father asked my surgeon, "Who pays for the care of those people?" to which the surgeon replied, "You do."

My, how times have changed—but not all of them. I just recently got a brand new left knee. After some preliminaries in the holding area, I was wheeled into the operating room on a gurney, from which I shifted onto the table. I was told to take a deep breath, then another, and the next thing I knew, something more than two hours later I was being told to open my eyes. I was in the recovery room, and soon was in bed in my own room, feeling wobbly and dopey, but otherwise well. The next morning I walked out into the hall, and after four days I was home, walking. If someone had asked me who paid for all that, I would have said, "Medicare." If I had given it more than cursory thought, however, I would have said, "You did."

In only the first of the three situations, though, was the answer so simple. My father paid the hospital for my stay there. He paid the surgeon, and he paid the anesthetist, also a doctor. Payment of the bills of the occupants of the ward beds was more complex, but when simplified, hospital costs were paid by tax money and by cost shifting from the pay patients such as me through my father. The surgeon might have been a house surgeon, who was paid by the hospital, or one of the practicing staff surgeons, who donated his time as a contribution to society. This was called charity, and in most cases it was just that. The doctor was glad to do it. It was why he had studied to be a doctor. He loved his work, and he loved to see people get well. Not all of them did, of course, but that was an expected part of medical practice.

Actually, in those days the whole process was pretty simple. There were hospitals operated by agencies of government at various levels, or by various benevolences, the former usually dedicated to the care of the indigent. The other hospitals also took a share of the poor, and so all contributed. Doctors also took care of patients regardless of their ability to pay, and much of the medical care, particularly in rural areas, was paid for in kind. The low point for everybody was reached during the Great Depression.

That was followed by the Second World War, which opened what I and others who began practice during and just after the war speak of as the Golden Age of Medicine. Huge advances were made during those years, and they were sustained and also made available to the public through generous federal grants, both for research and for the construction of hospitals through the Hill-Burton Act. The zenith was reached with the passage of the Medicare and Medicaid acts, which many saw as the descent into socialized medicine.

Whether it was that or not, what the provisions of the acts did was to effectively kill charity, which is defined first as provision of help or relief to the poor, which those acts, and socialism generally, at least theoretically, do furnish. But those entitlements differ from charity in that acts of charity are voluntary, performed out of benevolence and generosity toward humanity. The statutes required that all patients be treated equally, thereby prohibiting the extension of charitable acts toward patients. The federal programs simply extended the largesse themselves, but did it at the expense of the doctors and the hospitals, who got no credit, but only vilification.

Enter big business, the real enemy, along with our own TennCare, of good medical care and

of charity. Business, which is the largest of all purchasers of health care through their employee insurance programs, have negotiated with HMOs and MCOs to get the most for the dollar to the point that they have robbed their employees of adequate coverage, and the doctors of a living. TennCare has treated doctors and hospitals so shabbily, with uncertain payment of its criminally paltry fees, that the number of both doctors and hospitals that will take TennCare patients has progressively dwindled, and many doctors have closed their offices because the reimbursement will not cover their expenses.

All that this has done is earn the doctors the epithet "Greedy Doctors," when at the same time the officials of the insurance companies, HMOs, and MCOs continue to be compensated with salaries and benefits often equal to several million dollars yearly. Their income comes off the top of the gross earnings, and the providers and creditors are left to pick the dry bones. Doctors, whose natural bent and training are to be caring and compassionate, have a hard time competing with thieves and brigands, abetted by politically obligated lawmakers who refuse to allow doctors to negotiate on an even playing field on the transparent ruse that to do so is in restraint of trade. It is, they say, illegal under the Sherman Antitrust Act, and would, in any case, raise the cost of medical insurance.

It is inspiring to read of these generous acts of so many of our colleagues recounted elsewhere in this issue. I hope it will inspire others of our number to join them. But at the same time, I want us to be sure that we, and our peers out yonder, not lose sight, and not allow society generally to lose sight, of the enormous fiscal contribution we doctors daily make to society through the enforced restrictions on the legal and customary remuneration for our day-to-day service to them. Further, I urge you to continue to remind society that this results in an excessive burden on the medical profession, for which we are not only not thanked, but are indeed vilified. Society remembers only what has been done for them lately. Remind them that this is what we do for them not just lately, but daily—every day of every year, year in and year out.

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

HELP US TO HELP

Call the TMF Physicians Health Program at (615) 665-2516 in Nashville. Telephone message service available around the clock.

Confusion in the Ranks

To the Editor:

I must strongly disagree with Dr. Avery's comment that it is permissible for a trained nurse to harvest veins for a grafting procedure (Avery JK: Confusion in the ranks. *Tenn Med* 93:202-203, June 2000). Surgery, including the procurement of organs or tissue to be transplanted, should be done by surgeons. I feel that where cardiac surgery is done that a cardiothoracic, vascular surgical resident, or even a surgical resident, should be available. If nurses want to do surgery, they should go to medical school, and surgical residency.

I do not know the particulars of the case, or the hospital where the procedure was done, but when I have my surgery, I do not want a nurse doing any of the cutting. Please, give me a Board Certified, well-trained surgeon, for the whole thing.

Thomas A. Turner, MD, FACS 220 Hearthstone Manor Lane Brentwood, Tennessee 37027

Reponse

Thank you for your response to the Case of the Month, "Confusion in the Ranks." Dr. Thomison has asked that I reply to your letter. The practice of trained nurses harvesting veins for use in coronary artery bypass surgery is a commonly accepted procedure in hospitals that have a cardiac surgery program. The emphasis is, of course, on "trained nurses." In the situations with which I am familiar, the extent of the training is sanctioned by the medical staff of the hospital and the nurse is credentialed to do the procedure under the direct supervision of the surgeon doing the operation.

I can appreciate your preference for your having a "Board Certified, well-trained surgeon for the whole thing," but, in my experience, the practice used in the case, "Confusion in the Ranks," is a common one. The ultimate responsibility for the nurse's activities in any given circumstance would be with the supervising surgeon, the nurse, and the credentialing process used by the medical staff of the hospital.

Again, thank you for your careful reading of the article and your taking the time to comment on it.

J. Kelley Avery, MD PO Box 159012 Nashville, TN 37215-9012

Memoriam Format Change

To the Editor:

I continue to enjoy *Tennessee Medicine*. Invariably, I turn to obituaries first thing.

I think this is an important service of *Tennessee Medicine*, but it just seems to me that it would bring a much more

professional closure to our Tennessee colleagues of the Association if there were more of an obituary. In many instances, we know of these people directly or indirectly.

Considering the many thousands of dollars that most of us contribute over the period of a lifetime to the TMA, it seems rather a small matter of investigation to put this information in *Tennessee Medicine*—even if it is only a reproduction of the obituary in the local newspapers.

Thanks again for the work of the TMA and for your work as editor.

Douglas B. Haynes Jr., MD 1700 Woodlawn Ave Dyersburg TN 38024

Response

I agree that if *Tennessee Medicine* had unlimited means it would be a nice gesture to publish the obituaries. As it is though, *Tennessee Medicine* operates on a very limited budget, with only a single paid employee, the managing editor. There is, therefore, no possibility of investigating deaths, or anything else, for that matter. Our space is also quite limited, governed by ad income.

Thank you for your interest in Tennessee Medicine.

John B. Thomison, MD Editor—*Tennessee Medicine*

Shadow of a Doubt

To the Editor:

You are a bold soul! I applaud your overcoming being "chicken" and stating your opinion (Thomison JB: The shadow of a doubt. *Tenn Med* 93:191, June 2000). I concur with you exactly. Thank you for sharing your feelings about the death penalty with the rest of your fellow physicians. I am taking the liberty of forwarding your editorial to my good friend and capitol punishment opponent, Reverend Joe Ingle, a twice-nominated Nobel Peace Prize candidate. He lives there in Nashville and will be grateful for such a prominent person to take such a stand.

Again, I applaud your insightful dealing with the subject and your courage.

J. Michael Epps, MD 244 Coatsland Drive Jackson, TN 38301

To the Editor: Excellent!

John M. Burkhart, MD 103 Midlake Drive Knoxville, TN 37918



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Doctors "Give Back" To Make Their Communities . . . and Their World . . . A Better Place

Brenda Williams

"What we do for ourselves dies with us. What we do for others remains . . . and is immortal."

-Albert Pike

What would happen, some say, if all physicians in every community across Tennessee lent their time and talents outside of the office to charity work? We would no doubt have better communities, and, they would argue, a better world.

Despite the common, negative, and overgeneralized stereotype of the "greedy" doctor, the fact is, TMA members surveyed donate an average of 86 hours of their own time and \$12,554 per year to volunteer and philanthropic causes. Perhaps it's intrinsic in the makeup of physicians—trained and dedicated, working long hours to help people overcome sickness and disease—whatever traits led them to become doctors, may also lead them to become servants in their community. Whether it's the March of Dimes, Crisis Pregnancy, local food and blood banks, children's charities, or overseas medical mission trips, doctors not only should but do give of themselves after hours.

The Church Health Center in Memphis is one shining example. Founded in 1987 by Rev. G. Scott Morris, MD, the Center utilizes volunteer physicians and donations to provide affordable health care for the working poor. Its \$6.5 million annual budget is raised in the community, through churches, synagogues, and private individuals.

Over 400 physicians lend their free time to take care of some 30,000 patients each year; about 100 of those doctors volunteer as primary care physicians on site, the rest are specialists who treat patients free of charge in their own offices. Morris says it was not difficult to get his colleagues involved. "All doctors I know went to medical school because they want to help people. In the course of 13 years of asking doc-

tors to help, I've only had one doctor tell me 'No.' "He adds, "I'm thinking about calling him back and giving him another chance."

The rewards far outweigh the effort, according to Morris. "For most of our doctors, we're able to give them the experience they went into medicine for—they're helping people who are working, trying to make their lives better, but don't have insurance and don't know where to turn. In doing that, there's no paperwork, they don't have to get any kind of prior approval to do whatever is best for the patient, so they really are able to give up their time in service that is truly motivated by doing the right thing."

The city of Memphis benefits as well, Morris emphasizes. "I think it's an incredible event of the community coming together to help our neighbors in need—it draws Memphis together in a way few other things do. It allows people to work together who otherwise would never agree on the price of a cup of coffee, yet people are able to lay aside their differences and share their skills through the Church Health Center." He adds that Knoxville's Interfaith Health Center offers the same opportunity, and that there are similar programs in Nashville and several other cities across Tennessee.

A United Methodist minister as well as a family practitio-



Dr. Morris of the Church Health Center visits with a patient.

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

ner, Morris earned the TMA's Distinguished Service Award in 1998 for his work there, including the opening of the Hope and Healing Center in a building donated by Baptist Hospital. Opening six months ago, the new facility focuses on preventive medicine, including health and fitness, nutrition, and even spiritual well-being for its patients.

In his own life, the Church Health Center offers a way for Morris to live out his faith and give other people the chance to do the same. "What the Church Health Center is mostly about is calling the church to task: one-third of the Bible is about healing the sick, and yet we as a church have forgotten to do that. What we do is provide a way for the church to really fulfill the mission God has set before us." And the religious community has responded; more than 200 congregations of all denominations, including three of the four Jewish synagogues in Memphis, support the Church Health Center.

"A man is known by his actions."

-Proverbs 21:8

Personal faith plays a strong role in the volunteerism of Dr. James H. Ragsdale, a family practitioner in Union City. Semi-retired and working two days a week at the Obion-Weakley-Lake Counties Health Department, Ragsdale began making trips overseas as a medical missionary in 1995 through the Southern Baptist Foreign Mission Board. Now 71 years old, Ragsdale has traveled to Venezuela, Thailand, the Ukraine, Bolivia, and Brazil on a quest to provide both medical and spiritual help to those in need.

"I think more doctors are getting interested in doing this kind of work," Ragsdale observes. "I would certainly encourage them to do it, but at a younger age than I did. It's such a satisfaction that you're helping somebody that doesn't have anything. There's no money rewarding you, but it's just something that you can't describe; somebody can give you thousands of dollars and you won't get the real satisfaction that you get from this."

Ragsdale says the experience has broadened him professionally, giving him a chance to handle cases he would not ordinarily handle in northwest Tennessee. "I went up into the Andes Mountains on one trip and treated members of one of the Indian tribes; I saw skin diseases there that I've never seen before."

He says the patient reaction in those remote villages is overwhelming. "They are so overjoyed, they can hardly begin to understand why we, who have so much here, would come when we don't get paid for it. It's a binding friendship; they couldn't show us enough appreciation. They tell you 'thank you,' and in America, people don't always tell you 'thank you.'"

Along with the missionary trips, Ragsdale has volunteered time with Operation Smile and Mercy Ships, another international medical charity. He advises younger doctors to get involved with similar organizations. "I would encourage them to investigate it and make an effort to give something back."

The image of the "greedy" doctor reared its ugly head nine years ago and inspired one Knoxville physician to organize a regional flu vaccination program. "We started it more or less on a whim, after one patient accused me of liking money and never doing anything for anybody," recalls Dr. Charles Barnett.

Fueled by righteous indignation and a bit of amusement, Barnett contacted fellow doctors and got busy. The first year, with the sponsorship of a local hospital, the program administered 2,000 flu shots and raised \$14,000 for local charities—the shots were offered free, but patients were given the opportunity to make a donation. Since when the Knoxville Academy of Medicine has become a sponsor, the program has grown to 24 sites utilizing 300 volunteers. In 1999, the program gave 27,000 shots and raised \$92,000 for charity.

Barnett describes it as a win-win situation. "Our purpose is to immunize as many as we can. We ask for a donation, but the shot's free if they want it. All the money goes to the Knoxville News Sentinel's Empty Stocking Fund—they use it to buy children's Christmas presents and food (for needy families)." Physicians not only volunteer to administer the shots, they support the program financially; each Academy member is asked to donate \$250 annually.

As founder of the program, Barnett was honored with a TMA Distinguished Service Award in 1995. He says he was motivated partly out of frustration: "I just sort of got tired of listening to people bitch to me about doctors' greed." The rest of his motivation was familial: "My daddy told me growing up, 'Son, it's hard to give too much.' "Barnett's parents molded and modeled the idea of service to others, taking care of families in their community who were down on their luck,



Dr. James H. Ragsdale in Costa Rica with Guaymi Indians.

giving them food or whatever they needed.

Charity work pays dividends in real life, Barnett says, pointing out that doctors giving away the flu shots were initially afraid they would lose business, but instead wound up selling twice as many flu shots as before. "It's sort of like when you tithe in church; you never have money worries," he explains. "I think if doctors worked more in their communities and gave away more, they would get 100 times in return . . . it's a tremendous investment. It sounds sort of mercenary, but every time I give, I get back."

He also enjoys the internal benefit. "I've done mission trips, volunteered down at the Interfaith Clinic, and the inner satisfaction you get is well worth it. All the patients in my normal practice are very gracious when I'm doing it; they see it's the kind of thing that doctors need to be doing."

"Let us outdo each other in being helpful and kind to each other and in doing good."

— Hebrews 10:24

A TMA leader pointedly states that *all* doctors do their share of charity work, especially since the advent of TennCare. An American Medical Association study in 1994 found that 67.7% of physicians across the nation were providing free or reduced-fee care to hardship patients; the average in the East South Central region, which includes Tennessee, was much higher, at 71.3%.

Former TMA Vice President Dr. Phyllis Miller says other than charity care, her philanthropy work is focused on a couple of organizations. The Chattanooga Ob-Gyn specialist is a new board member for the local Rape Crisis Center and a longtime volunteer for the March of Dimes. Miller says getting out of the office and working for a cause you believe in is a world-expanding experience. "I've enjoyed meeting people in other fields—and I think it's a way for the medical profession to build a positive image. It makes you feel good; you feel like you've given your time and talents helping somebody else, with no monetary rewards . . . you're just giving back to your community."

Miller says, too, that volunteer work helps to dispel the negative stereotypes about the medical profession. "It's not completely altruistic. It's kind of fun to get out and do things that are completely nonmedical, go to parties or play golf, and hopefully it helps improve physicians' image that we will do things that don't reward us monetarily. The image of the "rich doctor" who makes a lot of money—we'd kind of like to do things that show that's not what we're all about."

Nashville is one of 15 cities serving as a regional hub for Operation Smile, a private, not-for-profit group that offers

TMA LEADS THE WAY IN PUBLIC SERVICE

TMA members who value charity work are no doubt glad to know that their professional organization does the same. The Tennessee Medical Association funds and implements programs every year with the intent to serve communities across the Volunteer State.

TMA created the CARE program more than a decade ago to further its development of public service and public relations events. TMA spokesman Russ Miller says one of the prime examples of TMA service in action was the Tennessee Medicare Access Program, created in the late 1980s. "The purpose was to match people that fell through the cracks of Medicaid/Medicare with physicians willing to waive the out-of-pocket money owed for services." The program ran for three years, involving more than 3,800 TMA member physicians across the state, before it was rendered obsolete by TennCare and the federal Qualified Medicare Beneficiary program.

CARE funds also launched a major domestic violence awareness program, for which the TMA won a national award. "We can't take credit for the timing, but our program was in place before the O.J. Simpson trial started," Miller recalls. "When all that came forth about spousal abuse and domestic violence, we were ready to educate physicians and position physicians' offices as a resource."

As hard as it is to believe, there was no statewide, toll-free number for reporting domestic violence at the time. The TMA was instrumental in helping to set up the 800 number service that still exists today.

Miller says the TMA worked closely with the Tennessee Task Force Against Domestic Violence to develop handbooks for medical offices that are still in use, as well as new voluntary reporting legislation. "All in all, CARE spent over \$100,000 and created a safe haven for patients; patients need to know they can turn to their doctor in confidence and get the help they need."

Current funding and public service efforts are focused on the "Live & Then Give" campaign, which urges Tennessee physicians, their support staff, and families to become organ donors. TMA is lobbying its membership, providing information about organ donation on its MEDWIRE Web site, setting up a clearinghouse at its Nashville headquarters, and planning to launch a direct mail campaign later this year.

In the late 1970s, it was TMA and TMA Alliance activism that led to the creation of child safety restraint laws and a few years later, a law requiring bicycle helmets for children. Miller says that legacy of service lives on today. "We have saved a lot of lives and made life better for others. For an organization such as ours, that's the ultimate public service."



A little girl in Managua, Nicaragua, is examined by an Operation Smile volunteer before receiving surgery to repair her cleft lip.

free reconstructive surgery and follow-up care to children and young adults suffering from facial deformities. Senior Manager Carla Joyner says 38 plastic surgeons and anesthesiologists in Tennessee are currently enrolled in the program. From June 1999 through June 2000, the Nashville chapter performed more than 40 operations. "The medical community is very dedicated and strong in Tennessee," she says. "Doctors there are really dedicated to Operation Smile. They not only go into the local communities, they go internationally. It's one of our most active chapters."

"Changing lives . . . one smile at a time."

-Operation Smile motto

Nashville anesthesiologist Dr. Michael Stabile joined Operation Smile at a friend's urging in the early 1990s. He has traveled to Romania, Venezuela, Nicaragua, and St. Vincent, working with teams of doctors and other medical professionals from around the world to repair cleft palates and facial defects in children. A trip to Bolivia is planned for March 2001.

Stabile describes the travel and the medical facilities in these third-world countries as "pretty primitive," but says the experience overall is "energizing." "It's interesting because you have to blend a whole team of around 35 doctors and nurses pretty quickly; there's always in-country doctors and some medical and cultural barriers to overcome. It's one of those weeks where I really have to use all my medical and interactive skills, so I guess I find it challenging."

Not one to "obsess" over the deeper meaning of his volunteer efforts, Stabile allows that he is satisfied with the chance to make a difference in a child's life. "I know that I can spend 90 minutes or so and be a part of a team, and some 3-year-old will have a pretty reasonable human existence, so in that regard it's an amazing bargain." He says the work is not meant for everyone, but it's perfect for those who are a bit adventurous, more flexible, and don't mind operating—literally—outside of their comfort zone.

Stabile says he is also happy at the end of a typical Operation Smile mission when he gets to go around and see the patients as they recover, meet their families, and see the fruits of his labor. The rewards, he says, are obvious. "Once people start doing it, they go back and do it again and again; that's enough of a testimony to its intrinsic reward. I'm a little uncomfortable getting into the missionary aspects of it . . . I'm glad I do it. It's not for everybody."

TMA Physician Charity Survey Results

- The average number of hours each physician contributes to charity per year is 86.4 (60 hours median).
- The average amount each physician contributes to charity each year is \$12,554 (\$9,600 median).
- 37.5% of physicians personally support more than seven charities annually.
- •Almost a fourth of physicians personally support ten or more charities each year.
- The average annual amount of uncompensated hours each practice donates to charity care is 230 hours or 5.75 40-hour work weeks per year.
- The average annual dollar value of charity care donated by each practice is \$133,309. Multiplied by the estimated number of medical practices in Tennessee (3,400) totals more than \$453 million.

The medical community supports the entire community! In a typical year, based our the results of TMA's first Physicians Charity Survey

- Doctors and their offices donate 561,000 hours of uncompensated charity services to patients, estimated at more than \$252 million.
- Individually, physicians donate more that 600,000 hours of personal time to charities outside of their medical practice.
- Physicians financially support Tennessee's charitable organizations with personal contributions of more than \$96 million.
- In total, Tennessee doctors provide a total financial impact to charitable organizations and services of more than \$348 million annually.

Health Care Serious Business for Coalitions

Groups Make a Difference in Community Health Care Delivery

Leigh Ann Roman

Businesses can be major players in the health care marketplace, and the three business coalitions on health in Tennessee offer proof of that.

Early on, such groups seemed to follow the adage that there is strength in numbers, and businesses banded together to form purchasing groups in order to contain costs.

One of the first business groups in the country to practice group purchasing, the Memphis Business Group on

Health (MBGH), saw it change the health care marketplace, says Cristie Travis, president and CEO of the group, which includes 41 businesses and covers 52,034 employees.

"It certainly shifted or changed the way competition had been going on, and certainly the employers, I think, benefit-ted—not just the business group members but employers generally benefitted because the networks saw they needed to compete on price in order to get the business. So I think people were willing to discount or to go to per diems and case rates," Travis says.

But as the health care marketplace has evolved, so have the business groups who now seem to be emphasizing the idea that information is power. The three Tennessee groups are currently working together to collect performance measurements for health plans statewide, which will be distributed only to group members and to the health plans. The business groups also are making a statewide request for information from the health plans about their services and programs.

Travis can speak for the impact of these "report cards"

"It [business groups] certainly shifted or changed the way competition had been going on and certainly the employers, I think, benefitted—not just the business group members but employers generally benefitted because the networks saw they needed to compete on price in order to get the business."

Cristie Travis, President and CEO Memphis Business Group on Health because the Memphis group has produced a local report card on health plans for three years.

After its first presentation, "the immediate reaction from the vast majority of the plans was, 'Next year, I want to be up at the top,' "Travis says. "And to me that was kind of exciting because there were no direct premium dollars. They were really focusing in getting services to members and also the satisfaction of members."

The approximately 120 health/business coalitions in the country operate on two basic models. One is an employer-only model in which members are businesses, like MBGH. The other includes health plans and health care providers as its members, as does Healthcare 21 Business Coalition which serves the Knoxville-Chattanooga area. Some, such as does the MBGH, practice group purchasing. Others, like Healthcare 21, do not use group purchasing. Instead, that group endorses certain health plans based on the information it gathers about them.

Whatever their model, these groups have had and continue to have a significant impact on their health care markets.

Donna Miller, president and CEO of the Tri-Cities Health Alliance in upper East Tennessee, can list several ways that her group has had a direct impact on the health care market.

"Before employers put this group together, there was virtually no managed care in Upper East Tennessee," she says of the six-year-old organization which now has 71 members with about 70,000 employees. As the group formed, hospitals and physicians began to put together physician-hospital organizations (PHOs), she says.

Leigh Ann Roman is a freelance writer based in West Tennessee.



Miller

The group also is a respected voice in the health care community, Miller says.

When Columbia/HCA tried to purchase Johnson City Medical Center four years ago, the business group voiced opposition to the move, Miller says. "Finally other people in the community started to speak out against it, and it didn't happen."

Currently, the group is being asked to take sides in

a certificate-of-need (CON) for a planned 85-bed hospital of Wellmont, the combination of the former Kingsport and Bristol hospitals, near Johnson City Medical Center. Both sides want the business group's support, Miller says.

"We have not decided. We are looking at the financials. You have to balance the desired competition against the undesired increased debt," she says.

If the group is unable to reach consensus on its position, Miller says, "the role we'll play then is to ask the questions and to get the community to start thinking about the potential pros and cons."

The MBGH definitely has increased health care competition in Memphis—a city dominated by two large health systems, Methodist Le Bonheur Healthcare and Baptist Memorial Health Care Corp.

Traditionally, the MBGH had contracted with Baptist's PPO. But in the late 1990s, the group decided it wanted a more competitive model and established relationships with the Methodist and Baptist PPOs. The agreements were for the term 1997-2001, with pricing to be renegotiated annually after the first two years. But in 2000, Baptist agreed to negotiate a price only if it was the exclusive system endorsed by the group, Travis says.

"We could not give them exclusivity, and they weren't willing to work with us in a nonexclusive environment," Travis says.

The result is that the Baptist PPO is not part of the business group offerings anymore. "We have left the door open to Baptist," she says. "If they are willing to operate in a competitive choice model, then we are willing to sit down and talk with them."

The group recently published a hospital report card for its members comparing standards such as mortality, average length of stay, and cost. "There is ample opportunity in Memphis for improvement by all hospitals," Travis says.

The MBGH also is involved in community dialog and sponsored a forum last summer that brought all of the major health care players together to address issues where there were common concerns.

"There is so much time spent on what we disagree on, and the idea of that forum was to say, 'I bet you we agree on 80% of the issues,' "Travis says.

Two projects came out of the forum: One is the development of centralized physician credentialing. The other is the development of a recommended benefit design for prevention. For example, it would say when a plan should start paying for mammograms. The work groups for both projects have members from all stakeholders in the health care marketplace.

Healthcare 21 also is heavily involved in community dialog, and last year hosted a conference to address the problem of under-prescribing beta blockers and ACE inhibitors for people with heart disease, says Jerry Burgess, president and CEO of that coalition.

The group had gathered data that showed about 25% of the people in its region who should get beta blockers weren't getting them, Burgess says.

Some change has occurred since the conference. "There is no data to prove that things are better, but there are stories to suggest that things are getting better," he says.

This fall, the group will address the high-profile issue of medical errors in its local market.

Healthcare 21 also gathers information on health plans to help its individual members make better purchasing decisions and gave its endorsement to three plans in 1998.

"We saw a definite shift of our members buying those three plans," Burgess says. The group currently is gathering data and will announce its new endorsements this summer.

The three-year-old group has 102 members, half of which are purchasers and half of which are providers. It represents 90,000 covered lives.

Like MBGH, TriHealth does not include health care providers as active members. Providers can be members of Tri-Health but do not have voting rights. Providers may be affiliates of MBGH but are not able to participate in purchasing.

Miller, however, says she has changed her mind about potential conflicts of interest in having providers as voting members. But she adds that any change in the group policy would have to be made by the board.

"I think the day has come where we need to have my members on the hospital board and need to have hospitals and physicians on the TriHealth board because I think it's going to take that commingling for us to come together and try to do things that will ultimately improve the health status of the general population," Miller says.

Practicing Medicine

Loss Prevention Case of the Month

Would It Have Affected the Outcome?

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 50-year-old construction worker fell on the job, causing injury to his perineal area. The initial evaluation by a family physician who was a member of a large metropolitan primary care group revealed the history of a fall in which the worker had sat down on some concrete reinforcing steel rods, causing pain and some bleeding from the site, with no other significant complaints. There were no recorded physical findings except for the injury itself. The physician recorded that with the patient on the examining table in the knee chest position, "Perineum—2-cm laceration/deep (puncture wound) just to right of the midline of mid-perineum. Minimal bleeding. Wound 2 cm from anal verge. U/A, rectal negative." The treatment consisted of "local wound cleansing. Return recheck 4 days."

Three days after the injury, the patient reported to the emergency department of a large teaching hospital with a history of fever, chills, nausea, and vomiting for 24 hours. He said he was told to use Neosporin and Tylenol. Examination revealed a temperature of 101°F, pulse 129/min, respirations 20/min, and blood pressure 97/53 mm Hg. He now complained of lower abdominal tenderness and vague pain. Examination revealed two penetrating wounds in the perineal area, one at 11 o'clock and the other at 1 o'clock. There was no purulent drainage, but induration and possible fluctuation was thought to be present in the perianal region. Rectal examination showed no masses

or communication with the penetrating wounds of the perineum. The WBC count was reported as 25,200/cu mm, BUN 40 mg/dl, creatinine 2.7 mg/dl. The patient appeared lethargic but responded appropriately. He was hypotensive, with a blood pressure of 97/53 mm Hg. A history of hypertension was obtained that had been irregularly treated with Dyazide. He appeared "toxic" and was admitted to the hospital where triple antibiotics were started immediately and he was taken as an emergency to the operating room for examination under anesthesia, and incision and drainage of the perineal area. A moderate amount of fecal purulent material was drained from the operative wound. Cultures were done and the triple antibiotic treatment was continued. Rectal examination revealed no penetration of the rectum, but the two wounds were probed and found to extend deep into the perirectal area. After vigorous debridement, the wounds were packed open with iodoform and Kerlix gauze.

This patient continued his toxic course and was taken to the operating room almost daily for further debridement and drainage. Further exploration of the wounds revealed extensive spread of the necrotizing process into the deep fascia of the ischial rectal area and eventually into the abdomen, where extensive involvement was found in the space of Retzius. On each occasion of exploration and extensive debridement, devitalized tissue was removed. When the surgical wounds were connected for better drainage, the infection was found to have progressed up the psoas gutter to the diaphragm and even into the chest. A purulent pericarditis requiring pericardiocentesis developed, and eventually a pericardectomy was required.

The infection continued to progress unabated with the development of renal failure, hepatic failure, respiratory distress, and disseminated intravascular coagulopathy. Death followed shortly after the removal of all supporting efforts, 14 weeks after admission.

A lawsuit was filed against the primary care physician and all the surgical team that attended this patient. The charge was negligence in the treatment of this patient's injury against all the physicians involved. The medical cost was in the neighborhood of \$650,000. It became a wrongful death lawsuit that was settled after arbitration for a figure substantially in excess of the medical cost.

Loss Prevention Comments

In the development of this case, there were experts on both sides. Good and qualified experts, both surgical and medical, affirmed that the initially treating family physician acted in accordance with a reasonable standard of care. They cited the extremely aggressive nature of this infection that did not respond at all to standard coverage with antibiotics and aggressive attempts to widely debride the devitalized tissue that developed faster than the treating surgeons could remove it. They even cited the knee chest position in which the patient was initially examined as being evidence of care over and above the standard.

The surgical team was dismissed from the lawsuit early in the case, leaving the sole defendant the family physician. The plaintiff experts all echoed a litany of occurrences that took this physician out of an acceptable standard of care. They pointed out that there were two penetrating wounds to the perineum while the doctor had mentioned only one in his record. This, they contended, indicated a less than adequate initial appraisal of the injury and appreciation of its potential seriousness.

These experts pointed to the superficial efforts by that physician to explore and clean the injury. There was no effort to explore the depth of the penetrating wounds or to establish whether or not it connected to the rectum. Although the patient and his family reported that the physician recommended the use of Neosporin at home, the experts pointed to the fact that the home care instructions were very inadequate. The physician testified that he told the patient to return to his office or go to the emergency department if he developed

any other symptoms, but since there was no documentation of those instructions, it was discounted.

The most serious testimony that was given by the plaintiff's experts was that the position and nature of this injury was such that an immediate referral to a general surgeon should have been done. They contended that if that had been done, there was a good likelihood that the infection would not have developed as it did. They stated that the specialist would have thoroughly examined the patient, under anesthesia if necessary, determined the extent of the injury, secured open drainage of the potentially infected area, admitted the patient to the hospital on this presentation, and begun aggressive antibiotic treatment at this time. This they contended might well have prevented the severe and fatal infection.

Would most physicians have prescribed antibiotic coverage for an infection showing both gram-positive and gram-negative organisms? Probably so. Would it have made the difference? Maybe so; maybe not! Would the discovery of the second penetrating wound have made the difference? Maybe so; maybe not! Would the emergency referral to a general surgeon have resulted in a favorable outcome? Maybe so; maybe not!

But the examination was not optimal. The documentation was poor. The appreciation of the serious nature of this wound was lacking from the record.

Perhaps the most prominent factors in this case were the expense of care, the pain and suffering experienced by this patient, and the untimely death of an otherwise healthy breadwinner.

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Original Contribution

New Program Development in Academic Medical Centers: The Story of Geriatrics in Tennessee

James S. Powers, MD

The development of academic geriatrics in Tennessee parallels the history of geriatrics in the United States. From the earliest beginnings of the hospice movement in the mid-1960s and the passage of the Social Security and Medicare Acts there have been small programs in geriatrics located at universities on both coasts.

The Department of Veterans Affairs' interest in geriatrics was apparent with the increasing age of veterans, which by the mid-1970s equaled three times the rate of aging in the general population. In 1975 the Geriatric Research Education and Clinical Center Program (GRECC) was developed by the Office of Geriatrics and Extended Care, and by the end of the century and it has grown to include 20 centers of excellence. These programs have served to stimulate the growth of geriatrics at affiliated universities.

Geriatric program development in Tennessee progressed from the mid-1970s through a series of stages: I. Formation (1977–1988); II. Enabling (1989–1993); III. Conflict (1994–1997); IV. Acceptance (1998–2000)

I. FORMATION (1977–1988)

Program development was begun by small groups of interested individuals at University of Tennessee Memphis, East Tennessee State University in Johnson City, Meharry College of Medicine, and the Vanderbilt School of Nursing. Nursing home physicians formed the Tennessee Association of Long-Term Care physicians in 1977. The first geriatric nurse practitioner program was begun at Vanderbilt School of Nursing in 1985. The Tennessee Geriatric Society was formed in

1986 by a group of concerned Tennessee physicians as the local affiliate of the American Geriatrics Society. The Health Services Research Administration (HRSA) funded a Geriatric Education Center at ETSU in 1989 and at Meharry in 1990 with a focus on geriatric education for health professionals. UT Memphis had a geriatric fellowship program for several years. Research at this time was predominantly in the form of case reports, and physician education was informal. Clinical activities in geriatric programs involved individually interested health professionals with frequent staff turnover. No geriatric teams were operational, and only individual health profession students with an interest in geriatrics elected experience in the care of older patients. Administrations at the medical schools in Tennessee were largely unaware of the need for geriatric education and of the activities of interested health professionals working in geriatrics.

II. ENABLING (1989–1993)

Program development proceeded with cooperation among the various educational programs via networking. Joint conferences, site visits, and sharing of resources set the scene for collaboration among existing programs. The first geriatric nurse practitioner graduates became employed in university settings, stimulating interest in geriatric care. A chair in Geriatrics was instituted at ETSU. Research was primarily related to educational experiences and surveys. Physician education in geriatrics occurred only within existing general courses. With the development of clinical nurse specialist and geriatric nurse practitioner positions at university affiliated clinical programs, geriatric teams first became operational. The various administrations largely ignored these early developments in geriatric education, research, and clinical care.

III. CONFLICT (1994–1997)

Program development included a rapid growth in clinical activities with a track record of financial stability. Events in health care in Tennessee included numerous drastic responses

From the Department of Medicine, Vanderbilt University Medical Center, and Middle Tennessee Veterans Affairs Geriatric Research Education and Clinical Center Program, Nashville.

The opinions expressed are those of the author and do not necessarily represent those of Vanderbilt University or the Veterans Administration.

Reprint requests to 7155 Vanderbilt Medical Center East, Nashville, TN 37232 (Dr. Powers).

TABLE 1

NEW PROGRAM DEVELOPMENT AT A UNIVERSITY MEDICAL CENTER
THE STORY OF GERIATRICS IN MIDDLE TENNESSEE

STAGE	I. FORMATION 1977-88	II. ENABLING 1989-93	III. CONFLICT 1994-97	IV. ACCEPTANCE 1998-2000
PROGRAM	small groups isolated	education cooperation networking	clinical growth track record	national recognition
EVENTS	1977 TALTCP 1985 GNP program 1986 TGS 1989 ETSU-GEC 1990 Meharry GEC	joint conferences site visitation GNP grads available	financial instability TN Care Medicare HMOs leadership changes	VU Geriatric fellowship AGS Nashville 2000 VU Chair in Geriatrics Middle TN GRECC
RESEARCH	case reports	education studies clinical research	health services clinical research small grants	collaborative efforts clinical research books large grants
MD EDUCATION	informal	within existing courses	elective rotations	universal exposure
CLINICAL	no teams individual students frequent staff turnover	CNS/GNP positions teams develop	collaborative practices LTC practices threatened resource w/d	integration of services across the continuum
ADMINISTRATIVE RESPONSE	unaware	ignored	fought	accept/promote

to increasing health care costs including the arrival of managed care for commercial as well as elderly and indigent populations. Increasing emphasis on health care costs created frequent leadership changes with financial instability for many institutions. Administrative responses to geriatric program development were very antagonistic to clinical efforts to form collaborative practices, long-term care practices, and patient care models that differed from restrictive HMO authoritarian efforts to promote financial stability. Physician education consisted of elective rotations in a burgeoning number of practice locations. Health services research, clinical research, and small grants characterized the research environment of the state's medical schools related to geriatric activities.

IV. ACCEPTANCE (1998-2000)

The increasing quality of research and the financial success of geriatric clinical models of care permitted increasing collaboration of the state's medical institutions in geriatric program development. Within the institutions an increasing integration of services across the continuum of health care was made possible. A Division of Geriatrics was created at UTCHS Chattanooga. The increasing interest among physicians in geriatric care and education led to the development of collaborative research efforts, clinical research, and larger grant applications. Publications included books with national audiences. Near universal exposure to geriatric education

became the norm in the state's four medical schools. National recognition of the growth of geriatrics in Tennessee and at individual institutions lead to a series of pivotal events including the development of a geriatric fellowship program at Vanderbilt (1998), a Chair in Geriatrics at Vanderbilt (1998), and the Veterans Administration's granting a GRECC at Nashville/Murfreesboro affiliated with Vanderbilt and Meharry (1999). The American Geriatric Society has chosen Nashville as the site for its annual meeting in the year 2000. The administration's response at the different medical schools was altered so as to now accept and promote geriatric programs.

Epilogue

The growth of geriatric models of care continues. New efforts at product line development and long-term care models are forecast for the 21st century. The training of physician specialists in geriatrics for positions of leadership in medical institutions is a major goal of academic geriatric fellowship programs. The history of geriatric development has been one of collaboration and team promotion. The notable involvement of community groups, concerned citizens, health professionals, universities, and the Department of Veterans Affairs has been an exemplary process heralding a vibrant and multifaceted geriatric program in Tennessee to meet the challenges of caring for an increasing number of elderly for the 21st century.

Original Contribution

An Autonomy Supportive Model of Geriatric Team Function

James S. Powers, MD; Sarah White, RNC, GNP; Linda Varnell, RD, LDN; Connie Turvy, RNC, GNP; Kathryn Kidd, MSW; Debbie Harrell, D.Pharm, CGP; Bobby Knight, PT; Kelly Floyd, OT,R; Kimber Zupko, CCC-SLP

Introduction

The care of geriatric patients is often a team-oriented activity. The multiple, complex needs of older patients require a comprehensive, interdisciplinary assessment, and a coordinated care plan with cooperation among disciplines to follow through with the care plan efforts. Commonly, health care professionals are introduced to

team concepts only late in their training, or else are left to develop team work skills by chance. Medical team function differs from traditional group theory in that all members are caregivers. In many medical settings, the interdisciplinary geriatric team is required to provide geriatric evaluation and management, and to maintain a restorative focus with an emphasis on functional outcome.

Geriatric Team Development

In response to the multiple needs of frail older patients, we developed in our institution a multidisciplinary geriatric team comprising a medical director/geriatrician, a gerontological nurse practitioner (GNP), a social worker, a dietitian, a pharmacist, and physical, occupational, and speech therapists. All team members were based in their respective departments but they functioned voluntarily and collaboratively in the care of geriatric service patients. The team was nurse-

From the Department of Medicine, Vanderbilt University Medical Center, Nashville.

Presented at the 4th International Conference on Long Term Care Case Management, American Society on Aging, San Diego, 1998.

Reprint requests to Vanderbilt Senior Care Service, 7155 Vanderbilt Medical Center East, Nashville, TN 37232 (Dr. Powers).

ABSTRACT

Interdisciplinary teams play a critical role in the delivery of geriatric health care. Health care professionals are commonly left to develop teamwork skills by chance. Medical team function differs from traditional group theory in that all members are caregivers. A non-competitive supportive atmosphere is appropriate for patient care. We propose a participatory (autonomy supportive) model fostering self-realization and positive reinforcement as an organizing philosophy. The primary group task is to maximize patient functional independence and personal goals. Leadership is task-dependent.

facilitated with a restorative philosophy of care.² The original model for the team grew out of the collaborative practice of the GNP and geriatrician who foresaw the formidable challenges involved in caring for the frail elderly population. There were no institutional directives or formal support for this effort.

In contrast to the classical authoritarian group function,

we promoted a participatory group function, the autonomy supportive model,³⁻⁵ fostering self-realization of team members and positive reinforcement as a preferred organizational philosophy. Mutual cooperation among team members was highly valued. The professional contributions of the entire team enhanced benefits far beyond any to individual efforts.

The primary motivation of the team was related to patient outcome (Primary Group Task). The patients' functional in-

TABLE 1

GERIATRIC TEAM DEVELOPMENT AUTONOMY SUPPORTIVE MODEL

Self-Determination Model of Team Function

Autonomy Supportive Climate

Autonomous Motivation

Perceived Competence

Positive Outcomes

Interdisciplinary composition and function Self-realization and mutual support Harmonious differences valued Primary group task—patient outcome Leadership is task-dependent

TABLE 2

TEAM BUILDING TECHNIQUES

Weekly team rounds and discharge planning meeting Five day/week rounds by GNP and MD Collaborative continuity practice by GNP and MD Marking of birthdays/weddings/births Dinners approximately three times yearly Informal consults, friendships among team members Communication and team leadership skills development Geriatric knowledge base inservices

dependence and personal goals are to be maximized. All group members share the characteristic of being capable caregivers with personal responsibility for patient outcome. With the realization that no one group member has all of the answers in exceedingly complicated cases, harmonious differences are valued and group members appreciate the complimentary roles and professional contributions of each other. Leadership is dependent on the task, with different team members often playing the major role in patient management at different times in the course of treatment. A noncompetitive positive reinforcing and supportive atmosphere is appropriate for patient care (Table 1).

Team Process

The Senior Care Team progressed through initial developmental stages of forming, storming, norming, and performing over a six-month period. In its initial inception, the GNP and geriatrician met many times to develop the philosophy of care and organizational structure. Discussions with administrators and department heads were required in order to integrate the effort with the total hospital concerns for patient care, staff development, education, and research. Team members were recruited from respective departments to help further develop the Senior Care Service's mission.

New team members were initially uncertain as to their roles and the philosophy of the Senior Care Service. Many had never worked with health professionals from other disciplines in a coordinated fashion. Some felt challenged to

TABLE 4

FACTORS IMPACTING TEAM (Development and Function)

External Factors

Institutional/departmental culture and priorities Institutional support/lack of support Departmental support/lack of support

Internal Factors

The players: members of the team
Team communication: formal and informal

Team culture Team productivity

TABLE 3

TEAM MEMBER TURNOVER

Four original team members remain (50%)
Average tenure of remaining members three years
Reasons for leaving: childbirth, marriage, retirement, career change

take an active role in developing care plans and seeking the active input of other team members. Occasionally, a new team member voiced concern about potential time commitments, and was replaced by an alternate. Team members participated in formal team development activities, including communication skills, case presentations, team leadership, and an organized series of didactic geriatric knowledge base inservices.

Patient care conferences reflected multidisciplinary contributions, with the nurse actively synchronizing the individual contributions of the team members, providing feedback and positive reinforcement so that a true interdisciplinary process could be realized. Group cohesion developed with increased individual team member commitment to the effort. Many team members considered their contributions to the Senior Care Service the highlight of their professional activities (Tables 2 and 3).

The team focus on the primary group task of maximizing patient functional independence and personal goals, with an autonomy supportive organizational model, minimized conflicts between team members. Individual personality differences were recognized and conflicts resolved by individuals, occasionally with the assistance of impartial third parties.

The Senior Care Service increased greatly in efficiency and scope of involvement in the care of elderly patients throughout the institution, including accepting total responsibility for selected patients and by consultation to other services. Professional boundaries blurred between team members and enhanced their professional development. Team members became more comfortable with switching between leadership and supportive roles at various times during the course of treatment, according to patients' and other team members' needs. Individual team members have come to greatly appreciate and understand each other's skills, and as a result have enhanced their own individual skills.

External institutional dynamics, and internal team and individual factors had profound influences on the development and function of the Senior Care Team. Education of changing institutional administrators and team maintenance efforts were important leadership tasks.

Administrative micro management, changing institutional priorities, focus on short-term financial goals, and adherence to individual rather than group dynamics and accountability continue to challenge the development of our geriatrics program (Table 4).

TABLE 5

TEAM EFFECTIVENESS INDICATORS

Average 400 inpatients per year (30% geriatric admissions)

Reduced LOS/cost/laboratory usage (53% cost of controls) Reduced number of readmissions within 30 days Members contribute to scholarly works Public and professional presentations Promoted nursing/social worker/administrative teamwork triad hospital-wide Train new case managers/social workers for the hospital Consulted on difficult management cases hospital-wide Administration seeks team input for hospital policies and protocols Enhanced awareness of ethics, restorative care hospital-wide

The team developed increased visibility and credibility throughout the institution, and was frequently asked for formal and informal consultations and didactic instructional support throughout the medical center and region (Table 5). There has been a great increase in geriatric knowledge within the medical center as a result of informal team member education of peers and colleagues, resulting in more appropriate referrals and enhanced geriatric care.

Epilogue

The Senior Care Service continues to evolve and adapt to the changing health care environment. Now over nine years since inception, the Service has experienced the loss and retention of new team members, and the need to respond to institutional pressures for cost containment, outcomes measurements, and the training of other health care professionals. Each new challenge has required a reorientation of all team members and a reevaluation of time commitments and individual team member support to positively adapt.

While our initial experience with the autonomy supportive geriatric team model began in the hospital setting, the Senior Care Team has trained Long Term Care Teams in affiliated institutions using the model with enhanced effectiveness and improved patient care as part of its educational role at the medical center. The role of the Medical Director has proven critical in influencing team effectiveness, especially concerning the Medical Director/Director of Nursing/ LTC Administrator triad. Such influence is all the more important in enhancing improved performance in a prospective payment driven LTC environment.

We are hopeful that our experiences with this successful model of an autonomy supportive Senior Care Team will be helpful to other groups and institutions responding to the same needs and challenges in caring for their own population of frail elderly.

References

- 1. Rubenstein LZ, Rubenstein LV: Multidimensional assessment of elderly patients, in Advances in Internal Medicine. Kansas City, Mosby Medical Publishers, 1990, pp 81-107.
- White S, Powers J, et al: Effectiveness of inpatient geriatric service in a university hospital. J Temi Med Assoc 87:425-428, 1994.
- 3. Deci EL, Ryan RM: Intrinsic Motivation and Self Determination in Human Behavior. New York, Plenum, 1985.
- 4 Deci EL, Eghvari H, Patrick BC, et al: Facilitating internalization: the self-determination theory perspective. J Pers 62:119-142, 1994
- 5. Ryan RM. Control and information in the intrapersonal sphere an extension of cognitive evaluation theory. J Pers Soc Psychol 43:450-461, 1982.
 6. Tuckman BW: Developmental sequence in small groups. Psych Bull 63:384-399, 1965.
 7. Bales RF: Interaction Process Analysis: A Method for the Study of Small Groups. Reading
- MA, Addison Wesley, 1950

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Department of Health Report

Reporting Deaths to the Medical Examiner

Bruce P. Levy, MD

One question that many physicians and other health care professionals have is which deaths need to be reported to their County Medical Examiner. In order to insure that deaths requiring medical examiner investigation are not missed, reportable death criteria are relatively broad. Yet all deaths in a community clearly do not need to be reported to the medical examiner. Also, a reportable death is simply that. It is up to your County Medical Examiner to determine which reported deaths should be accepted for investigation and then which accepted cases require an autopsy. A forensic autopsy is a specialized and expensive tool to be utilized only when necessary, and not a procedure to be performed upon request. Reportable death criteria are addressed in our state law and in the policies of the State and County Medical Examiners.

Tennessee State Law establishes criteria for reporting deaths to the County Medical Examiners. Tennessee Code Annotated (38-7-108) states: "Any physician, undertaker, law enforcement officer, or other person having knowledge of the death of any person from sudden violence or by casualty or by suicide, or suddenly when in apparent good health, or when found dead, or in prison, or in any suspicious, unusual or unnatural manner, or when the body is to be cremated shall immediately notify the County Medical Examiner."

As you will note from reading the law, many of the categories of reportable deaths are very specific, while others are vague and ill defined. This provides flexibility to the law and allows the County Medical Examiner to establish local practice standards. Please take note that there is no requirement that all deaths that occur within 24 hours of hospital admission (so-called 24-hour rule) be reported to the medical examiner in Tennessee.

All County Medical Examiners should establish reportable death criteria for their jurisdiction and provide them to health care providers in their community. The State Medical Examiner's Office has established recommended reportable death standards for the County Medical Examiners to use.

criteria of the Metropolitan Nashville-Davidson County Medical Examiner's Office and have served Nashville well for many years.

1. Death when not under the care of a physician for a potentially fatal illness. Generally, we would define "care

These 14 criteria are based on the actual reportable death

- of a physician" as an ongoing physician-patient relationship where the physician has treated the deceased. This treatment does not necessarily have any defined time restrictions.

 2. Death of a person when the attending physician, or
- his or her representative, is unavailable or unwilling to sign the death certificate. (For example, out-of-state physician or physician on vacation.)
- 3. Death occurring suddenly when in apparent good health when the cause of death has not been established by medical treatment.
- **4. Death from violence of any type.** This includes gunshot wounds, stab wounds, blunt trauma, fall-related deaths, fire deaths, drowning, and motor vehicle collisions, *regardless of the time elapsed from onset of incident to the time of death.* (For example, if a person is shot with injury to the spinal column resulting in paraplegia, then develops a urinary tract infection from an indwelling catheter and sepsis at a later date, the death can be traced back to the injury and this is a reportable medical examiner case.)
- 5. Death related to an overdose of illegal drugs, alcohol or legal medications.
- 6. All deaths of children without a clear underlying natural cause of death. Any injuries in a child should alert you to contact your County Medical Examiner for consultation, even when there is natural disease present. Sudden infant death syndrome (SIDS) is a diagnosis of exclusion requiring a complete autopsy, and all suspected SIDS deaths *must* be reported to the medical examiner.
 - 7. Death occurring in a prison or of a prisoner.
 - 8. Death occurring on the job or related to employment.
 - 9. Death believed to present a public health hazard.
- 10. Death of a patient during or as a result of a diagnostic or therapeutic procedure, a medication error, or adverse, allergic, or toxic reaction to a therapeutic agent.

From the Tennessee Department of Health, Nashville. Dr. Levy is Chief Medical Examiner, State of Tennessee and Metro Nashville-Davidson County.

- 11. Death of a nursing home or extended care resident when abuse, neglect, or overmedication is strongly suspected or confirmed as contributing to death.
- 12. Death of a fetus of greater than 22 weeks gestation and when the death is related to an act of violence, maternal substance abuse, or an accident.
- 13. Death of a person from any cause when the person's identity is unknown or unclear.
- 14. Death when cremation of the remains is to be performed.

Reportable death criteria for your community should serve as a guideline. If you have any questions or concerns regarding the death of one of your patients, you should contact your County Medical Examiner for consultation. The State Medical Examiner's Office is also available as a resource if you have any general questions regarding reportable deaths or other topics involving death investigation in Tennessee. On behalf of our County Medical Examiners and their assistants, I thank you for your continued attention to and participation in this important public health program.

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Vanderbilt Morning Report

Idiopathic Polymyositis As the Initial Manifestation of Lupus Erythematosus

Case Report

A previously healthy 22-year-old black woman came to the emergency room with a one-month history of fatigue. She had been well until four weeks earlier when she noted fatigue and weakness on ambulation. She was subsequently seen twice by physicians and given a diagnosis of a "viral syndrome," for which she was treated with azithromycin and doxycycline without improvement. Shortly thereafter, her urine became dark and she came to Vanderbilt Hospital.

The patient did not recall any tick exposure. Her previous daily activities consisted of attending college classes and working part-time at a home improvement store. She denied use of tobacco, alcohol, or drugs. She lived with her family, all of whom were in good health. Further review of systems was unremarkable, and her physical examination was normal.

Initial laboratory studies revealed elevated transaminases with an ALT of 1,319 U/L (normal 4 to 40) and an AST of 3,513 U/L (normal 4 to 40). Serum bilirubin was normal. Her CBC, electrolytes, and creatinine were normal. Urinalysis demonstrated 3+ proteinuria and granular casts. A creatinine phosphokinase (CPK) level was 100,200 U/L (normal 30 to 210), and myoglobin was detected in her urine. An MRI of her lower extremities demonstrated severe myositis. An antinuclear antibody (ANA) titer was positive at 1:160. A double-stranded DNA (dsDNA) antibody test was negative. Her erythrocyte sedimentation rate was elevated at 75 mm/hr.

After intravenous fluid administration, the patient improved and was discharged to home with a diagnosis of idiopathic polymyositis. Two weeks later she returned with muscle weakness, neuropathy of the lateral thigh, and generalized lymphadenopathy. Fine-needle aspiration of a cervical lymph node revealed nonspecific inflammation and necrosis. She was started on corticosteroid therapy and improved with increased muscle strength and decreased lymphadenopathy.

Following a dose reduction in her corticosteroids, the patient had an abrupt increase in node size and diffuse arthralgias, with leukopenia and thrombocytopenia. A supraclavicular node biopsy demonstrated reactive hyperplasia. An anti-Smith

(anti-Sm) antibody test was positive. Based on the constellation of symptoms and a positive anti-Sm antibody, a diagnosis of systemic lupus erythematosus was made (SLE).

The following week she was re-hospitalized with periorbital edema, retinopathy, oral ulcers, pleural effusions and an active urinary sediment. Kidney biopsy revealed lupus nephritis. High-dose corticosteroid therapy and azathioprine were started, and she improved slowly. She has had no further exacerbations of her SLE.

Discussion

SLE is a disease of unknown etiology in which tissues are damaged by depositions of pathogenic autoantibodies and immune complexes. As illustrated by this patient, a number of organs can be affected.

Mucocutaneous manifestations of SLE often include the characteristic malar "butterfly" rash and painless oral ulcers. Although our patient did not have a facial rash, her oral ulcers may have been related to SLE. It is unusual, however, for them to be painful. Musculoskeletal manifestations are common with SLE. Arthralgias occur in 95% of SLE patients, and arthritis is not infrequent, but myositis occurs much less commonly.2 Lupus serositis may result in the accumulation of pericardial, pleural, or peritoneal fluid. Although present in our patient, pleural effusions are more common in the elderly and in drug-induced lupus.3 Neurologic complications in SLE can involve any region of the central or peripheral nervous system. Our patient experienced retinopathy and mononeuritis multiplex. Autoantibodies that cross-react with neuronal antigens have been isolated from CSF in patients with SLE, and titers correlate with anti-DNA levels. Hematologic manifestations often include cytopenias. Anemia may be the result of blood loss, chronic inflammation, drugs, or hemolysis. Lymphadenopathy can be one of the presenting signs of SLE, as in this patient. Histologically, reactive hyperplasia is the most common finding. Most patients with SLE have immunoglobulins deposited in glomeruli, but only half have clinical nephritis.4

The presence of characteristic antibodies confirms the diagnosis of SLE. Antinuclear antibodies represent the best screening test but lack specificity. Specific antibodies include the anti-double stranded DNA (anti-dsDNA) and anti-Sm antibodies. Our patient had anti-Sm antibodies but a nega-

Presented by Cari Loss, MD, third year medical resident, and David Aronoff, MD, the Hugh J. Morgan chief medical resident, Vanderbilt Medical Center, Nashville. Edited by Jason Morrow, MD.

tive anti-dsDNA antibody titer. The anti-Sm antibody was the most helpful serology confirming her diagnosis. It is present in only 30% of patients, but when present is disease-specific.

Treatment of SLE includes glucocorticoids and cytotoxic agents. In this patient, treatment initially consisted of systemic corticosteroids. Immediately after tapering, however, her disease activity increased and cytotoxic therapy was initiated.

References

- 1. Boumpas DT, et al: Systemic lupus erythematosus: einerging concepts. Part 2: Dermatologic and joint disease, the antiphospholipid antibody syndrome and hormonal therapy, morbidity and mortality, and pathogenesis. *Ann Intern Med* 123:42-51, 1995.
- Petri M: Treatment of systemic lupus erythematosus: an update. Am Fam Phys 57:2753-760, 1998.
 - 3. Hess E: Drug related lupus. N Engl J Med 318:1460, 1988.
- 4. Boumpas DT, et al: Systemic lupus erythematosus: emerging concepts. Part 1: Renal, neuropsychiatric, cardiovascular and hematologic disease. *Ann Intern Med* 122:940-950, 1995.

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TMA Alliance Report

Who Are We? What Do We Do? Why You Should Join!

Membership is the lifeblood of any organization and we need your help to strengthen the Alliance. Physicians' spouses who are not Alliance members might ask of our organization: Who are you? What do you do? Why should I join?

Who are we? We are an organization of physician spouses dedicated to improving the health of America. The TMA Alliance has fostered unity among physicians' families since 1927. We advocate our spouses' chosen profession and work to enhance the image of medicine through our volunteer efforts.

What do we do? The TMA Alliance works for awareness and prevention of such public health problems as domestic violence through our SAVE (Stop America's Violence Everywhere) program; we coordinate fundraising efforts and network with existing agencies in our communities, including Growing Healthy, Health House, Habitat for Humanity, Ronald McDonald House, Target House, domestic abuse shelters, and other local health programs. We promote health education through Teen Health Workshops, screening programs for cancer, breast cancer awareness programs, medical family support programs, and all projects that address healthy living.

The TMA Alliance supports quality patient care through legislative activities such as our legislative visits to Nashville, our fax and telephone alerts on medical matters, and our IMPACT membership. The Alliance speaks with one voice to state legislators through these contact systems.

Since 1953, the TMA Alliance, and its predecessor, the TMA Auxiliary, has raised funds for medical research and scholarships for the AMA Foundation. Tennessee has placed first nationally for 27 consecutive years for the largest contributions raised by a state to this Foundation, with Tennessee's medical schools being the chief beneficiaries.

Why you should join! Membership in the TMA Alliance provides support in problems indigenous to the medical marriage. As physician spouses, we have shared experiences and common concerns. The impact of changing times, and the constantly changing dynamics affecting the practice of medicine, have presented problems and challenges unique to medical families. Alliance membership provides a forum for sharing information to address these issues.

If you don't have the time to be an active member, be an informed member by supporting Alliance activities with your dues. We need all levels of involvement from our membership. To join, contact Tonya Malzone, TMAA Executive Secretary (800-659-1862). Please be a part of your county, state, and national Alliances.

We Need You!

Dianne Laster TMAA Membership Chair

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during May, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Laurie M. Baker, MD, Memphis Barton A. Chase, MD, Ramer Charlotte D. Coleman, MD, Bolivar David B. Elias, MD, Chattanooga John C. Flynn, MD, Nashville James A. Gray, MD, Johnson City Don C. Harting, MD, Cleveland Michael T Hood, MD, Newport Robert C. Lee, MD, Kingsport Gregory S. Neal, MD, Madison Luis C. Pannocchia, MD, New Tazewell Richard T. Rutherford, MD, Carthage Jerry E. Sanders, MD, Knoxville Michael A. Saridakis, MD, Jackson Catherine L. Scruggs, MD, Bristol John W. Zirkle, MD, Jefferson City

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennesssee Medical Association.

Blount Count Medical Society Henry C. Hooker, MD, Maryville

Consolidated Medical Assembly of West Tennessee

Keith D. Nord, MD, Jackson

Knoxville Academy of Medicine George E. Newman, MD, Knoxville Periclis Roussis, MD, Knoxville

Lakeway Medical Society
William J. Williams, MD, Morristown

Montgomery County Medical Society Brian S. Carter, MD, Clarksville

Nashville Academy of Medicine Stuart H. Caplan, MD, Nashville Lynn L. Ellington, MD, Franklin Robert E. Sutton, MD, Brentwood Robert K. Taylor, MD, Nashville

Overton County Medical Society

James A. Cunningham, MD, Livingston

Sumner County Medical Society Robert T. McClure, MD, Gallatin

Washington/Unicoi/Johnson County Medical Association Ian A. Darling, MD, Johnson City

In Memoriam

Mark Warren Anderson, MD, age 42. Died June 2, 2000. Graduate of State University of New York School of Medicine. Member of Benton-Humphreys County Medical Society.

David C. Dorr, MD, age 77. Died June 18, 2000. Graduate of Johns Hopkins University School of Medicine. Member of Blount County Medical Society.

TMA Board of Trustees Meeting Minutes

April 27 and 29, 2000

The following is a summary of actions taken by the Board of Trustees of the Tennessee Medical Association at its regular second quarter meetings held April 27 and April 29, in Knoxville, Tennessee.

Adopted the minutes of the TMA Board of Trustees meeting held January 22, 2000.

Approved the minutes and confirmed the actions of the Executive Committee Meeting held March 8, 2000

THE EXECUTIVE COMMITTEE, at its March 8, 2000 meeting, took the following actions:

Governor's Commission on the Future of TennCare: Agreed to petition the Governor to appoint a practicing physician to the Commission.

HealthStream Alliance: Agreed to proceed with negotiations with HealthStream for TMA endorsement.

Draft Resolution: Reviewed a draft resolution addressing the issue of nurse practitioners being listed in the physician section of the Yellow Pages. Agreed that the matter should be addressed immediately rather than waiting for the Annual Meeting.

Finance Committee: Agreed to accept the recommendation from the Finance Committee and open separate accounts for the reserve fund and the operating fund.

THE BOARD OF TRUSTEES, at its April 27 meeting, took the following actions:

TMA Committee on Legislation: Appointed Dr. Newton P. Allen Jr., Nashville, to fill the District 5 vacancy on the Committee on Legislation.

State Appointments: Agreed to submit the following names for consideration of appointment to various state boards and committees. *Board of Medical Examiners*: Drs. Sam T. Barnes, Cookeville (for reappointment); Mitchell L. Mutter, Chattanooga; and Howard L. Salyer, Nashville. Drs. Jeffrey Fenyves, Kingsport (for reappointment); George L. Eckles, Murfreesboro; and Subhi D. Ali, Waverly. *Emergency Medical Ser-*

vices Board: Drs. Charles M. Alderson, Parsons (for reappointment) Jerry DeVane, Chattanooga; and Thomas W. Carr, Memphis. Dr. Donald Edgar Barker (for reappointment). Cancer Reporting Advisory Committee: Drs. Irvin D. Fleming, Memphis (for reappointment); Howard W. Jones, III, Nashville; and William J. Fidler Jr., Memphis. Drs. Jeffrey W. Gefter, Chattanooga (for reappointment); Donald Owens, Memphis; and Sam J. Williams III, Hixson.

Grier Consent Decree: Agreed to file an amicus brief outlining the TMA's policy on patients' rights.

The Center for Health Services Research: Agreed to contact The Center for Health Services Research applauding their efforts to collect valid data relating to health care in Tennessee.

Endorsement Request: Agreed to send a letter of support for the grant application of the Cancer Center, Breast Health Outreach Program.

Special Membership Status: Agreed to grant veteran status to the following Memphis physicians: Drs. R. Michael Rodriguez, Deborah S. Ruark, Paul C. Gomez, Robert O. Begtrup, and Mary Ann Snowden. Granted special status to Dr. James P. Henderson.

1999 Audit: Accepted the 1999 audit of the Tennessee Medical Association as presented by Bellenfant & Miles, PC.

Second Quarter Financial Statement: Reviewed the financial statement for the second quarter.

Retiring Board Members: Recognized the following retiring members of the Board of Trustees and presented a plaque to each: Drs. James D. King, Selmer; Reuben A. Bueno, Nashville; Robert C. Patton, Kingsport; and David G. Gerkin, Knoxville.

THE BOARD OF TRUSTEES, at its April 29 meeting, took the following actions:

Board of Trustees Officers: By Ballard Motion, elected the following officers of the Board of Trustees: Drs. J. Fred Ralston Jr., chairman; John J. Ingram, III, vice-chairman; Subhi D. Ali, secretary/treasurer; and Mr. Donald H. Alexander, assistant secretary/treasurer.

Committees of the Board: Appointed the following physicians to serve on the Committees of the Board of Trustees: Executive Committee: Drs. J. Fred Ralston Jr., John J. Ingram III, Barrett F. Rosen, David K. Garriott, James Chris Fleming, and Subhi D. Ali. Finance Committee: Drs. Subhi D. Ali, Wiley T. Robinson, and David N. Freemon. Publications Committee: Drs. David K. Garriott, Robert W. Ikard, Oscar M. McCallum, and John B. Thomison. Committee on Exhibits: Dr. Ralph E. Wesley. Committee on Long Range Planning (Executive Committee). Travel Committee: Drs. Barrett F. Rosen, James Chris Fleming, and David K. Garriott. Annual Meeting Committee: Drs. Barrett F. Rosen, James Chris Fleming, Sam J. Williams III, David E. McKee, J. Fred Ralston Jr., and Ralph E. Wesley. Committee on Insurance Plans: Drs. Charles Ed Allen, Virgil H. Crowder Jr., Robert D. Kirkpatrick, Ann H. Price, and Howard L. Salyer.

Medical Specialty Society Liaisons: Appointed members of the Board of Trustees to serve as liaisons to the statewide medical specialty societies.

Resolutions Referred to the Board of Trustees by the TMA House of Delegates: Agreed to combine Resolutions

No. 13-00 "Joint Meeting Between the TMA and Medical Specialty Societies"; 21-00 "Annual Meeting Venue"; 22-00 "Annual Meeting Timetable"; and 28-00 "Coordination of the TMA Annual Meeting with the TMA Alliance Annual Meeting" and refer those to an Annual Meeting Task Force chaired by Dr. John Ingram. Appointed the following to serve on the task force: Drs. Ty Webb, Jill Chambers, Glen Crater, Burgin Dossett, Richard Lane, Lee Morisey, James King, David McKee, and Mrs. Marcia Young.

Resolution No. 24-00: Appointed Drs. David Garriott and John Hale to review Resolution No. 24-00 "Tennessee General Assembly Doctor of the Day Program" and report to the Board in July.

Resolution No. 15-00: Agreed to defer action on Resolution No. 15-00 "Tennessee Birth-Related Neurological Injury Compensation Program." Staff to obtain comments from TCMSS, SVMIC and the State of Virginia, and report to the Board in July.

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

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For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

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Oct 6 Kaleidoscope of LD Conference Dec 1-3 Clinical Update in Ophthalmology

Knoxville

Sept 20-23 Cardiology & Internal Medicine Update 2000

5th Annual Pediatric Trauma & Emergency Medicine Nov 8

Nov 14-16 Advanced Cardiac Life Support

Nov 29-30 Pediatric Life Support

Chattanooga

Nov 30-Dec 17th Annual Internal Medicine Update 10th Care of the Aging Patient Symposium

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.

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References—References should be limited to 20 for major communications and 10 for case reports. All references must be cited in the text in numerically consecutive order, not alphabetically. Personal communications and unpublished data should be included only within the text. The following data should be typed on a separate sheet at the end of the paper: names of first three authors followed by et al, complete title of article cited, name of journal abbreviated according to *Index Medicus*, volume number, first and last pages, and year of publication. Example: Olsen JH, Boice JE, Seersholm N, et al: Cancer in parents of children with cancer. *N Engl J Med* 333:1594-1599, 1995.

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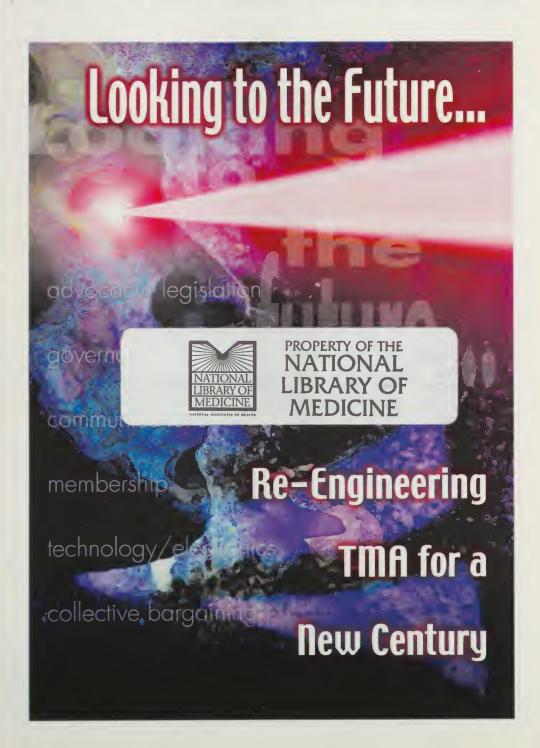
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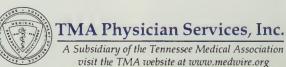
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John B. Thomison, MD Assistant Editor Robert W. Ikard, MD

Managing Editor Jean Wishnick

Editor

Business Manager Donald H. Alexander

Sr. V.P.—Communications
Russ Miller

Advertising Representative Jean Wishnick Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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President's Comments



Barrett F. Rosen, MD

American Medicine's Umbrella

I recently returned from attending my first meeting of the AMA House of Delegates. While I found the pace to be almost frantic and the activities at times similar to a three-ring circus, I came away with a renewed level of excitement and commitment to organized medicine. I assure you that when I stood on the podium representing this great state as Dr. Randall Smoak was being inducted as our new President, I was overcome by a sense of the history and importance of this organization. Realizing that this organization has been around for well over a century trying to protect patient care is an awesome thought. This continuum must be protected and nurtured.

I realize that we do not always agree with everything that the AMA says and does, but this is the *only* true representative group that tries to speak for *all* of us. Given the political realities we face, I am amazed that the AMA has been as successful as it has been. We must realize that without this voice we would be much worse than now (if that can be imagined) and if we are to ever be able to take back control of the health care decisions our patients need, we must strengthen this organization by increasing membership.

While political activities take up a significant amount of time for the AMA, these actually represent only a small part of what our AMA does. The large volume of reports and studies that is available to all members is almost overwhelming! We can get information and recommendations on a multitude of topics. There is help available for those contemplating selling a practice and all of the potential legal and ethical issues involved. Many areas of practice management can be helped through the AMA services as well.

An extensive report of the future of Electronic Medicine and all of its potential concerns has been formulated and is certainly worth reading. Anyone who is planning Web pages, e-mail communications with patients and third parties, etc. should read this.

I highly recommend that everyone contact the AMA either by phone at 800-AMA-3211 or via the internet at www.ama-assn.org. You will be astounded at the amount of information that is available to you and to the public as well. I assure you your time will be well spent.

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John B. Thomison, MD

On Reinventing the Wheel

I started to head this "On Reinventing Oneself," but I decided that would be a personal thing, and personal this certainly is not. Or looked at another way, maybe it is too personal. There might be reasons, advanced by some of the principals in this, ummmm... well—this activity, for entitling it "... Re-engineering...," but it is hard to see how it would still be a wheel if you re-engineered it. So what I was left with is what you see, for a medical association as well as a wheel.

So, then, what is it that we are reinventing, if that is what we are doing with it? I'm sure you all remember the fable of the three blind men who were trying to identify an elephant. Each had his own unique picture of it, none of them even close to accurate. Just as they knew it was an elephant, we know the object of our diddling is the Tennessee Medical Association. As to the exact nature of what it is we have here at present, though, and whether or not it is accomplishing its assignment, seems to depend on who is doing the evaluation. If you didn't know where you were headed, you can't know whether you got there or not.

When the Tennessee Medical Association was founded, it had clear objectives. Its aim was to strengthen the profession through collegiality, and patient care through education. When I joined just after the Second World War, times had changed tremendously, but the Association's objectives remained the same. Time does not, of course, stand still, and there are those who believe the need for such roles is anachronistic. And so membership has dwindled.

In response to a growing unrest among the membership, the TMA Board of Trustees formed a task force to study the future of the Association—what its role should be and how that could best be fulfilled. Some of the Board members have expressed excitement over the report of the task force, the essentials of which we carry in this issue of *Tennessee Medicine*, so that you can judge for yourself. As TMA President Barrett Rosen, MD, observed, "Today's times call for action. It is better to be criticized for trying and failing than for not trying at all."

In just a few months I will have lived on this planet for 80 years, having had those ten additional ones added to the allotted three score and ten. I have seen wars and rumors of wars, nation lifting up sword against nation, pestilence and famine, global warming, floods, winds, and earthquakes, and the end is not yet. I have also seen the promises of New Deals and Great Societies, and through it all, I have noticed that there has been, as the saying goes, many a slip twixt the cup and the lip.

I therefore call your attention to the sage comment of Dr. Rosen, that "the devil is in the details. The concept is right on, but implementation will be very difficult." I hope to be around TMA to see how the devil plays out those details. And I wish the same for all of you.

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Starting from Scratch Re-Engineering TMA for a New Century

Brenda Williams

At 170 years old, the Tennessee Medical Association is doing some collective soulsearching.

"Why have a TMA? What's wrong with TMA? What's right about it?" TMA past-president and chairman of the TMA Futures Task Force Dr. David Gerkin spells out the questions that were examined during a year-long effort to

evaluate the relevance, effectiveness, and value of Tennessee's largest physicians' association.

The Knoxville ophthalmologist led a group of 15 other physicians from across the state as they waded through survey and focus group results to find the key elements that would insure that TMA not only survives, but flourishes in the next century.

TMA Chief Executive Officer Don Alexander says this is a critical mission, one the TMA should be doing regularly. "You can't plow along using mules when your competition is using a tractor," he quips, adding, "This isn't to say we're throwing out legacy and tradition, but legacy and tradition can sometimes suffocate an association from looking forward."

"Market" Research

Looking forward will mean big changes for the organization as it strives to both lead and serve its 6,200 members—and attract new ones.

Edge Healthcare Research of Nashville guided TMA through the process of gathering input from member and non-member physicians in seven regions of the state in late 1999. Edge President Jim Toth says he was impressed with the commitment of TMA leaders to the task. "TMA undertook this process like a very successful product marketer. They could have short-changed it, but they said, 'No, let's go everywhere and talk to as many physicians as possible." They took the same approach used by experienced corporations." Toth adds that the thorough, formal approach paid off.

According to Toth, there are two reasons to do a market study: first, if a company or group does not know its market and needs response from its customer base; and second, if a company or group knows its market but needs to confirm preconceived ideas and uncover additional information. TMA leaders know their market, Toth says, but needed to glean additional insight. "They confirmed quite a few findings, but they also uncovered some new issues." The big surprise for a veteran researcher like Toth was the consistency of thought from doctors in every part of the state. "For example, most all the regions said let's move forward with a collective bargaining effort; it was also somewhat surprising that there was such consistency among physicians in (the fact that they said) let's change our method of internal governance," Toth recalls.

In all, complaints, compliments, and suggestions for change were reviewed and analyzed by the specially appointed Futures Task Force and then were assembled into formal presentations in six areas: Advocacy/Legislation, Governance/Leadership, Communications/Image, Membership, Technology, and Collective Bargaining.

Advocacy/Legislation

Recommendations in this category centered around the need for a new TMA mind-set. "We have to change our philosophy to say, 'What's good for our doctors and what's good for our membership is good for the health of Tennesseans," says Gerkin. Doctors participating in last fall's focus groups said they wanted to see a tougher TMA, and Gerkin agrees. "We need to be aggressive in the legislature," he says. "We are perceived as very successful, but in many places they still perceive us as being too careful. The AMA has gotten aggressive, we need to be aggressive—not mean, but right."

That might include the creation of a full-time Medical Director within TMA; someone to be a chief spokesperson and represent the Association as the "conscience" of health care in the state. "That would mean developing a person who is there 24 hours a day, seven days a week, someone people will know," Gerkin says.

Another recommendation is to abandon the House of Delegates structure and come up with a new way of determining and prioritizing advocacy issues. "Our surveys show doctors still want to give input, but sitting in a House of Delegates meeting for two days is not the best use of their time when they could e-mail you the answers to every question you want to ask," explains Alexander, who says teleconferencing, web-conferencing, or online voting might re-

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

place the time-consuming gatherings for delegates.

Other suggested actions include developing programs and partnerships to help members deal with their specific practice and business issues, and other programs to help patients become self-advocates for health care issues.

Governance/Leadership

When it comes to governing and leadership within the TMA, the Task Force report again recommends a change away from

the traditional House of Delegates, along with evaluating and changing the roles of the TMA President and Board of Trustees to maximize cooperation and eliminate potential power conflicts. Proposed actions also include mentoring and leadership training programs, and beefing up grassroots input using the latest technology.

"The way we make policy decisions in this new century is light years behind where we need to be, and if you want membership input, you can't

wait until once a year to have a membership meeting," advises Alexander.

Communications/Image

Telling TMA's story—and improving the Association's image—are the main themes in this category. Again, recommendations include the overlapping proposal for a highly visible TMA spokesperson, along with increased cooperation between TMA and local medical societies on public relations events and programs.

Better communication is also desired, using expanded web capabilities to establish two-way links between TMA headquarters and members.

The Association also needs to combat its "PMS" image that's "Pale, Male, and Stale," according to Gerkin. "We have been perceived as a good old boys' club, and we need to turn the tables around." TMA's research showed that female and minority physicians were less likely to identify with or connect with the Association.

Membership

TMA's image is directly linked to its membership, which has suffered in recent years. Alexander chalks it up to a new

"This group coming along, they're not joiners of anything just because it's the thing to do. They don't join civic clubs, they don't join alumni associations, they don't join professional associations unless they see real value," he stresses. "They want to spend time with family and they don't want to burn themselves out working 70 and 80 hours a week. They're saying, 'I want to be involved, but make it quick, make it valuable and beneficial for my time to volunteer.' "

Therein lies the answer, Alexander says. Proposed actions include creating services that meet physician members' needs, including some members-only services, and cutting services

> that are unwanted or outdated; and working with local medical societies and medical specialty societies to promote the value of membership.

> Gerkin wants to pursue the "members-only" services; he says surveys and focus groups found that TMA members were unhappy that non-members had access to a lot of Association benefits, without paying dues. "We need things you cannot get or get exposed to without belonging," he said, men-

tioning the idea of a physicians-only bank.

Like most traditional organizations, the American Medical Association is also feeling the membership pinch. "Clearly, physicians are being more selective in where they spend their membership dues," says AMA Vice President of Strategic Management and Planning Bruce Balfe. "Collectively, the amount available to spend for membership dues is down—everyone's trying to figure out how to deal with that." Balfe says it is wise for associations like TMA to focus on value-added services for their members.

"Re-engineering is quite different from reorganizing. Reorganizing means you change things around the periphery of the activities. When you re-engineer, you start from the bottom and build to the top and disregard everything that's existing—it's

fundamental, critical, dynamic change in

the way we look at ourselves." Dr. David Gerkin, Chairman

TMA Futures Task Force

Technology/Electronics

TMA should lead its members into technology—that summation from the Futures Task Force, which proposes dumping cumbersome, costly modes of communication in favor of rapid response communication. Aggressive use of interactive Web services, hyperlinks, electronic mail, strategies for e-commerce, and other e-services is highly recommended.

The Task Force envisions statewide meetings, newsletters, CME information, board voting and policy information, legislative voting records, ancillary/financial services, insurance reviews, and prescription, billing and patient information—all online and available to TMA members. Alexander adds that instantaneous communication to and from the membership is vital. "We need to basically restructure how we get grassroots input, and to do that we need to use every

Task Force Objectives and Recommendations

The overall objectives of the Task Force's recommendations follow. By implementing these recommendations, TMA will

- * increase membership and improve retention rates
- * increase operating revenue through value-added services, pricing strategies, and new business relationships
- * reduce operating costs through the better use of technology
- * be more effective for and more relevant to the membership
- * be more responsive and attuned to the needs of our members current and potential
- * rejuvenate the image of TMA

Recommendations to the TMA Board of Trustees

PHASE ONE

- Redesign our mode of communications with the membership making better use of today's technologies. This includes using electronic capabilities to gather information, to form policy, to activate members, and to keep members better informed of the Association's activities.
- 2. Re-engineer the leadership structure of the Association (House, Board, Officers) to be more reflective of and reactive to the membership.
 - A. Seek the best physician leaders to serve the membership by eliminating regional bias and legacy issues
 - B. Create leadership pathways to identify and train tomorrow's leaders
 - C. Reconstruct the leadership to be representative of the membership
- 3. Prioritize our initiatives in all areas of operations based on broad-based membership input.
 - A. Make the Association's services more "members-only"
 - B. Increase and promote the value of membership by eliminating undesirable programs and products and adding more "valuable" services
 - C. Increase and strengthen membership recruitment and retention efforts
 - D. Begin development of a model collective bargaining unit for Tennessee with educational components for members and their medical societies
- 4. Create a new Association image based on the premise "What is good for our membership is good for the health of Tennesseans." Become more focused in our efforts to be advocates for our members.
 - A. Employ a physician spokesperson to become the outward "face" of TMA with the government, the legislature, the media, the membership, potential members, and the general public

PHASE TWO

- 5. Provide more and varied educational forums for members on a wider range of topics based on the needs of the membership.
- 6. Seek more non-dues revenue-generated ventures capitalizing on the expertise of the membership.
- 7. Strengthen intra-organizational relations
 - A. Standardize all operations for the TMA and its components
 - B. Increase involvement in public relations activities and events, both at the state level and in cooperation with local medical societies
 - C. Empower local medical societies to become better spokespersons for the TMA
 - D. Develop new ways to work in cooperation with state medical specialty societies

Futures Task Force Subcommittee

David G Gerkin, MD	dgerkineye@aol.com	(865) 609-0002
Barrett F Rosen, MD	RosenBF@ortholink.net	(615) 329-6600
J Fred Ralston Jr, MD	ralston@vallnet.com	(931) 433-2551
John J Ingram III, MD		(865) 982-0092
Subhi D Ali, MD	subhi@waverly.net	(931) 296-7788
David K Garriott, MD	dkgarrio@usit.net	(423) 247-5553
James C Fleming, MD	jflemin@bellsouth.net	(901) 490-4118
Jeffrey J Gleason, MD	jigleason@pol.net	(931) 381-5801
Mack A Land, MD	lynnbrier@aol.com	(901) 685-3490

piece of technology we can afford. It's an idea whose time has come, and we need to move in that direction."

Collective Bargaining

A big surprise during the research phase of this effort, collective bargaining is an issue that has strong support in many

regions of the state. Doctors told TMA researchers they are frustrated by their lack of leverage in dealing with insurance companies and networks. Most of the recommendations in this category involve making preparations and laying the groundwork for a model collective bargaining unit for Tennessee.

"Congress just passed the Campbell Bill—the antitrust collective bargaining bill, and states can now do it legally," says Gerkin. His Task Force recommends pushing for passage of legislation allowing Tennessee physicians to collectively negotiate their insurance contracts. Other pro-

posals include preparing a comprehensive legal analysis of CBU and how it would apply in Tennessee; gathering reference resources to aid the effort and help TMA serve as a reference source; and creating educational programs to aid physicians in contracting.

Re-Engineering to Rejuvenate

Balfe applauds TMA's quest to re-engineer itself, something he says the AMA tries to do every year. He says the changing climate of medicine makes it necessary. He adds that a key element seems to be missing as doctors look to the future. That key element is hope.

"I see something in physicians today that I didn't used to see, probably because of the whole managed care thing and all that's happening, and that is a sense of hopelessness and sort of despair from time to time," he states. "I think one of the things organized medicine needs to do is somehow communicate to physicians that all is not lost. There are some good things, some progress being made, and ultimately we'll

resolve some of these issues to the benefit of both the profession and the public."

Ultimately, hope will come with a stronger, more savvy TMA. Alexander agrees that the rapidly changing medical environment dictates the need for continuing evaluation and re-engineering. "It's needed all the time. You try to think

"Twenty years ago, I was just coming into

practice. I joined TMA for the reasons we

all joined back then. I remain a member

because I became involved in organized

medicine and see the benefit of the

organization. Our research tells us that

what was a good reason for a doctor to

join 20 years ago does not resonate with

today's new physicians—the future core

members of TMA—anymore. We have to

make changes, not just for the sake of

change, but to survive."

Dr. J. Chris Fleming

TMA Immediate Past President

since the explosion of the technology capabilities."

He adds, "I hope members realize this is a critical time. We're laying out the next four or five years, which is the foundation for maybe the next 20."

strategic planning is a threeto-five year plan, but it's almost monthly, particularly

Epilogue

The TMA Board of Trustees reviewed the proposed task force recommendations during its recent quarterly meeting in July. "This is the greatest leap forward I have seen the TMA consider since I have been active in the

leadership," said Memphis Board member and TMA Finance Committee member Dr. Wiley Robinson, "If this doesn't get you juiced up, you need to check your pulse!"

Collectively the Board was supportive of the proposal in concept and voted unanimously to approve the recommendations to allow the process to move forward. Being cautious to ensure a true understanding of all that the recommendations call for, the Board appointed a subcommittee to work with staff to develop a more detailed action plan to be presented to the Board at its next meeting on November 5, 2000.

"The devil is in the details. The concept is right on, but implementation will be very difficult," warned TMA President Dr. Barrett F. Rosen. "Today's times call for action. It is better to be criticized for trying and failing than for not trying at all."

A Futures Report Web page has been created on MEDWIRE. You can access the full report and additional information on the project at www.medwire.org/futures.html.

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New Lease on Life:

Viaticals Give Terminally III Financial Relief

Leigh Ann Roman

At 50, Linda McKnight of Hermitage, Tenn., is facing her second fight with vulva cancer and dealing with all the financial stress that goes along with catastrophic illness.

A single woman with no source of income except her own resources, McKnight made a decision this year that brought her some financial

relief and made her part of a \$1-billion industry—viaticals.

The viatical industry was born in 1989 as a result of the AIDS epidemic. It allows people with terminal illnesses to sell their life insurance policies to investors for a percentage of the face value, usually between 45% and 85%. The money can be used for living expenses, medicine, or anything else the patient needs to be made comfortable. Higher settlements are paid for lower life expectancies, and lower settlements for longer expectancies. Because with the current therapeutic options the life expectancy of AIDS patients has become less predictable, the industry is branching out to serve patients of other terminal illnesses, such as cancer and heart disease.

"It's a little disheartening in one way, because the only way you can be assured you'll get a settlement is if they have reason to believe that you will not survive more than four years. "It's a mixed blessing when you get the funds, but I will say that I've never worked with more caring or professional people than Page & Associates. They were wonderful, wonderful, very helpful," she says.

McKnight received 62% on her policy, \$62,000, which she used to pay off debts and to set aside as an emergency fund. She lives on disability from her job as a bank loan officer. She had worked two jobs prior to her illness. To get a viatical settlement, the sick person must fill out the viatical

"Our industry exists because people have horrible, horrible expenses when they become terminally ill and need to get the money somewhere. If they have a life insurance policy, why not use it for living?"

Sherry Hobson, Benefits Administrator Page & Associates, Inc.

company's application and give permission to the company to request his medical records. Those are sent to the viatical company's independent reviewing physicians, says Sherry Hobson, benefits administrator for Page & Associates, a viatical company in Ft. Lauderdale, Fla. If the independent review determines that the person will

live for 48 months or less, the viatical company will purchase the policy.

The company makes a small amount of money for handling the transaction, and the investors who provide the money to purchase the life insurance policies make a percentage of interest at the time of that person's death. For example, the investors would receive 5.5% in simple interest if the individual's life expectancy is six months, or 68% if the person's life expectancy is 48 months. The yield is determined at the time of the person's death. Meanwhile, payments continue to be made on the policy for as long as the person is expected to live, plus one year, Hobson says.

Well-known in the AIDS community, the viatical is less well-known in the general community or by physicians who serve non-HIV patients. "I think they're not well-known simply because there hasn't been any mass marketing to physicians," Hobson says. "A lot of people feel this is a very gruesome kind of thing. 'How can you make money off people dying?' We look at it as a service we are providing, just as if we were a pharmaceutical company providing a chemotherapeutic agent or just as if we were an oncologist providing oncology service."

"Until there is some way for people to have all of their medical expenses paid for, they need to have access to all of the funds possibly available to them."

The health insurance situation in the United States has only worsened over time, says Hobson, a registered nurse who previously worked in the University of Missouri's Cen-

Leigh Ann Roman is a freelance writer based in West Tennessee.

ter for the Study of Aging.

In 1988, there were 17 million people at risk for financial disaster as the result of a terminal illness. That number has increased to a current level of 25 million, she says.

Hobson also cites a recent study reported in the *British Medical Journal* and the *Norton's Bankruptcy Adviser Journal*. The study, con-

ducted at Harvard University and the University of Texas, found that high medical bills played a part in 40% of bank-ruptcy filings in the last year. The researchers surveyed people who had filed in eight judicial circuits nationwide.

"Our industry exists because people have horrible, horrible expenses when they become terminally ill and need to get the money somewhere," Hobson says. "If they have a life insurance policy, why not use it for living?"

E. Haavi Morreim, a professor of bioethics at the University of Tennessee's Health Sciences Center in Memphis, says the industry appears to be a market that meets a need.

But she adds that there need to be safeguards so that the people on both sides receive fair information and good counseling. "One of the major concerns here is honesty and forth-right information." The involvement of the patient's physician, who must supply the medical records to the independent reviewing company, is no different than when the physicians disclose the same information to commercial insurers.

Of course, "the patient needs to be told exactly what is in that information and how much further that information goes," Morreim says. "The viatical company needs to be bound by whatever level of privacy has been promised."

Fraud has been a problem in the viatical industry, and Hobson recommends that the insured person make sure that the viatical company is licensed if the state in which he lives requires a license. That can be checked through the Department of Insurance. Hobson also recommends that investors check to see where their funds will be held and who is responsible for that money.

Some states have more viatical regulations than others. Florida is one of the strictest states. For example, the viatical company must have the money in an escrow account when the financial offer is made to an individual for his policy. The state also limits the amount of time the insured person must wait to receive the money.

"I think viaticals are clearly an important option for people. I think there will be many [companies] that will continue to do both.

It's just that it's a much more difficult audience to reach."

Valerie Bergman Cooper, Executive Director National Viatical Association Although facing her own mortality is anything but pleasant, McKnight speaks highly of her experience with the viatical company. And she wants to let more people know about it because, she says, even her physician was unaware of the industry.

The industry is changing, according to Valerie Bergman Cooper, execu-

tive director of the National Viatical Association, one of two associations that serve the industry. Although the industry has grown from half a billion to \$1 billion in ten years, the emphasis on viaticals has declined. More and more companies are involved in life settlements, or senior settlements.

Life settlements are for people who no longer need their life insurance policies, such as senior citizens whose homes are paid for and children are grown, Bergman Cooper says. Instead of letting the policy lapse, the person could sell it for a smaller percentage, between 5% to 25%. Typically, the person is 65 or older with a life expectancy of 14 years or less.

Another change in the industry is that institutional investors, rather than individuals, are investing in the industry. Although declining in significance, viaticals always will be part of the picture, Bergman Cooper says.

"I think viaticals are clearly an important option for people. I think there will be many [companies] that will continue to do both. It's just that it's a much more difficult audience to reach."

To learn more about the viatical industry, check out these Web sites or call the industry's two trade associations:

The Viatical and Life Settlements Association of America www.viatical.org phone (202) 429-5129

The National Viatical Association www.nationalviatical.org phone (800) 741-9465

Loss Prevention Case of the Month

The System Failed (Radiology/Emergency Department)

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 15-month-old girl, the product of a normal pregnancy and delivery, was brought to the emergency department (ED) of a pediatric teaching hospital on a Monday at 7 PM with a history of a runny nose, cough, and congestion for one week.

The child had been seen at three weeks of age and the encounter was termed "well baby check up." Two months later she was seen in the ambulatory clinic with a history of fever 101 to 102°F and "pulling at ears." The examination was normal. At 6 months of age the child was seen again in the ambulatory clinic with fever which began the previous evening. She was noted to have "unlabored breathing." She was given "Amoxil 75 mg by mouth every 8 hours for 10 days." The mother was instructed to "rcturn to regular MD 10-14 days." There is

no record of the return visit. At 13 months of age, she was brought to the ED with fever and symptoms of a "cold" for two days. Wheezing was heard bilaterally, but a chest x-ray was reported by the radiologist as "normal chest." She was thought to have asthma and bronchitis, and was treated with aerosol (Albuterol). The wheezing cleared after the second treatment, and she was discharged in "good" condition on antibiotics and steroids for five days.

On the present admission to the ED the child had vomited during the previous hour. Though the ED nurse had noted

"wheezing" on her assessment, when the resident working in the ED examined the child he found only the runny nose and congestion, but no wheezing. The oxygen saturation was 94% and there was no fever. The resident ordered an x-ray of the chest and read the film as showing some "interstitial pneumonia." The patient was given a broad-spectrum antibiotic by injection, to be followed by a similar medication by mouth. Four hours after her arrival in the ED the child was noted to be "sleeping on room air with no retractions." Shortly thereafter, the child was discharged from the ED with instructions to follow up with her doctor in two days. Later that same day the radiologist read the chest x-ray and reported, "Findings of pulmonary edema and cardiomegaly suggestive of myocarditis." He noted that the chest x-ray taken two months earlier had shown a normal heart, and believed that the present large heart was indicative of probable myocarditis.

The next day the mother took the baby to church, and while the pastor had the baby in his arms "praying over her" she stopped breathing. 911 was called, and CPR was begun and continued in the ED of the hospital. On arrival at the ED, the child was intubated and had an intraosseous line in place. Venous access was attempted several times but was unsuccessful. The child was in cardiorespiratory arrest which could not be reversed. The liver was enlarged 2 to 3 inches below the costal margin and in the midelavicular line. Autopsy showed a heart twice normal size, and microscopic examination showed findings compatible with severe myocarditis.

A lawsuit was filed soon after the death of the child charging both the resident who saw her on Monday and the radiologist who read the film later that day with failure to diagnose and failure to treat this patient in a timely fashion. After a thorough review of the facts surrounding this tragic event, a low six-figure amount was agreed on by both the mother and the physicians.

Loss Prevention Comments

The severe myocarditis was fatal to this little 15-monthold girl. Had her care been better coordinated, would it have made any difference? That is doubtful in this case, but possible. There had been a chest x-ray taken two months before her death which showed a normal-sized heart and clear lung fields. The x-ray taken the day before her death showed an enlarged heart and pulmonary congestion indicating heart failure. The primary care giver did not know of the radiologist's interpretation of the film and the radiologist did not know of the clinical progress of the patient or lack of it.

The failure to diagnose and treat this child was a failure on the part of both the clinician and the radiologist. If an x-ray is important to the clinical evaluation of a patient, the clinician has an overriding obligation to follow up on the radiologist's interpretation of the film. If the resident had known that the expert opinion of the film was pulmonary edema on the basis of heart failure rather that interstitial pneumonitis, would he not have contacted the mother of the baby, who was ever so much sicker than she looked to the resident, and insisted on an emergency reevaluation of the child and hospitalization and treatment?

This was an outpatient x-ray ordered from the ED. It was not done on an in patient. Should not the radiologist have considered the finding of cardiomegaly and heart failure to have been unsuspected by the clinician, who was a resident, and followed up on his findings to make sure that appropriate action was taken? After all, this child was the responsibility of both the ED physician and the radiologist, and both failed in that serious responsibility. There simply must be a system in place in the treatment of a patient in such a situation that assures that the non-radiologist's opinion of an x-ray is affirmed or corrected by the opinion of an expert. This was a teaching institution, and the physician in the ED was a resident. The greater weight of responsibility must fall on the shoulders of the physician who is in the position of "teacher" to the physician in training.

On two occasions in the life of this child, the mother had been told to take her baby to her "regular MD." Did this baby have a "regular MD"? Was that information on the ambulatory clinic's chart? In the coordination of the care of this patient, is not that information important?

What, if anything, should the mother have done to participate in the care of her daughter? One could speculate that since the child was taken to a spiritual healer the morning following that last visit to the ED, the mother was fearful about the child's progress at that point. Ideally, one would caution the mother to insist on a final reading of the x-ray before she left the ED. Patients should always follow up on tests done or x-rays taken in the course of their treatment, and if those results are not forthcoming in a timely manner, take the appropriate action to secure the reports. "When will I hear from the tests, doctor?" This is a question that should be asked of their physician by every patient if the results of tests are not available when the visit is concluded.

Again, the question: "Would it have made any difference to this patient if the correct diagnosis had been established and the appropriate treatment begun immediately in the ED on that last visit?" Maybe not, but every patient deserves our best effort. It is easy to conclude in this case that this child did not receive that "best effort," whether or not it would have made the difference between life and death. The systems either were not in place or they failed for this child.

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Original Contribution

Sir William Osler's Writings: Still Pertinent to Medical Students

D. J. Canale, MD

The principles and ideals of the medical profession as visualized by that great physician and medical humanist, Sir William Osler (Fig. 1), are less likely to be familiar to today's medical students than they were to those of a few decades past. In 1999 the 150th anniversary of Osler's birth was observed and the rich legacy he left in his writings recalled. The messages he sought to convey are still relevant to medical students today.

When asked how his epitaph should read, Osler replied: "I taught medical students in the wards." Indeed, his interest in medical education, and in particular medical students, was pervasive. This short paper in his memory will demonstrate that the addresses he delivered to medical students, always considered among his best works, are still worth reading. His historical and philosophical essays are timeless.

A brief biographical sketch will illustrate how William Osler, at the height of his career, was the most influential and respected physician in Canada, the United States, and Great Britain. William Osler, the eighth of nine children and the youngest of six sons, was born in 1849 at Bond Head, Ontario, a small village on the edge of the wilderness north of Toronto. His father served as a country parson in the Anglican church. Both parents had immigrated from England ten years earlier.

His primary education was at Weston after his family moved to Dundas. Here Reverend William Johnson introduced young William Osler to Sir Thomas Browne and his work, *Religio Medici*. Osler was also influenced early by Dr. James Bovill, a physician naturalist, who put him at the microscope.

In 1867, at age 18, Osler enrolled in Trinity College, Toronto, to study for the ministry, but after a year, with Dr. Bovill's encouragement he decided to study medicine. Three years later he left Toronto to continue his medical studies in Montreal at McGill University, then the leading medical school in Canada, where he became a favorite of Dr. Palmer



Figure 1. William Osler, 1902, from William Osler Bart, Brief Tribute to His Personality, Influence, and Public Service. Baltimore, MD, The Johns Hopkins Press, 1920.

Howard, Professor of Medicine. Teaching at this time was said to resemble the Edinburgh Program of an earlier day. At graduation from McGill Medical School in 1872, Osler was awarded a special prize for his thesis.

Following this, he studied abroad for two years, a goal of most Canadian graduates at that time. Fortunately, financial assistance was available from his brother Edmund. Osler spent the first 17 months of that period working under Dr. John

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Reprint requests to 4639 Peppertree Lane, Memphis, TN 38117 (Dr. Canale).

TABLE 1

AN ALABAMA STUDENT AND OTHER BIOGRAPHICAL ESSAYS

An Alabama Student
Thomas Dover, Physician and Buccaneer
John Keats, the Apothecary Poet
Oliver Wendell Holmes
John Locke as a Physician
Elisha Bartlett, a Rhode Island Philosopher
A Backwood Physiologist
The Influence of Louis on American Medicine
William Pepper
Alfred Stille
Sir Thomas Browne
Fracastorius
Harvey and His Discovery

Burdon Sanderson at University College Hospital, London. In Dr. Sanderson's laboratory Osler first thoroughly described blood platelets and noted their aggregation upon withdrawal of blood. He also visited the laboratories of Virchow in Berlin, and Politzer and Braun in Vienna.

Osler returned to Montreal in 1874. He was soon offered the position of lecturer in the Institutes of Medicine, and a year later was promoted to Professor. At McGill in 1895 he delivered his first valedictory address to medical students. The worthy themes of this address would echo throughout his later addresses to students.

As a young physician and teacher, Osler demonstrated courage. He volunteered to staff the smallpox ward at the hospital, a dangerous task, and spent most of his small pay obtaining 12 microscopes for his students. During this time, he also organized a journal club and the McGill Medical Society for the benefit of undergraduate students.

In 1878, aided by a petition from the students to the Board of Governors, Osler was appointed physician to Montreal General Hospital. The following spring he started instructing students at the patient's bedside for the first time, a technique he continued at McGill. His accomplishments in the decade at McGill, too numerous to list here, included over 1,000 autopsies and countless medical papers. His reputation as an astute clinician and talented teacher became widely recognized; hence, it was no surprise that in 1884 at age 35 he was offered the Chair of Clinical Medicine at the University of Pennsylvania. He accepted. In Philadelphia, where he had two large medical wards almost to himself, he continued his bedside teaching. By example, Osler stimulated his students to observe, record, and publish.

In September 1888, Osler accepted the appointment as Physician-in-Chief to the new Johns Hopkins Hospital in Baltimore. In May of the following year, he gave his valedictory address, *Aequanimitas*, to the students at the University of Pennsylvania. His reputation in Baltimore grew with publication of some of his most important clinical papers between 1889 and 1905. His textbook, *The Principles and*

Practice of Medicine, which Cushing labeled Osler's magnum opus, was published in 1892. This book, which became the most widely used internal medicine text in North America and England, indirectly influenced John D. Rockefeller to channel his philanthropy into medical research and education. The same year, Osler married Grace Revere Gross, the widow of his good friend, Samuel W. Gross, a noted Philadelphia surgeon. The Oslers had two sons, Paul Revere Osler, who died in infancy, and Edward Revere Osler, who became his father's dearest joy.

The Johns Hopkins Medical School opened in the autumn of 1893 with its first entering class of 18 students, three of whom were women. By 1895, Osler had a busy teaching schedule. He met third-year students three days a week, and, at eight in the morning on Monday, Wednesday and Friday, conducted rounds with fourth-year students who served as clinical clerks on the medical wards.² He continued to influence students chiefly by his personal example.³

The pressures on Osler mounted yearly throughout the Baltimore years as he became the most sought after consultant in North America. In 1905, he was offered the Regis Professorship of Medicine at Oxford by the King. Encouraged by Grace, he accepted, thinking his life in that position might be less hectic; however, even more would be required of him in the new role.

In Oxford, the Osler home at 13 Northam Gardens soon became known as the "Open Arms," where hundreds of friends and students from Canada and the United States were welcomed. In England, Osler actively founded societies and journals. He promoted clinical teachings at Oxford, continuing the tradition he had initiated in Philadelphia and Baltimore. He was knighted in 1911. With the outbreak of World War I, the demands on him became incessant.

His beloved son, Revere, was killed in France in 1917. This was a crushing blow for Sir William, one from which he never fully recovered. He died two years later at age 70 from complications of empyema. Lady Osler remained at 13 Northam Gardens for the next ten years, continuing the tradition of the Open Arms until Sir William's large medical library had been catalogued and shipped to McGill.⁵

At the time of his death, few worthy of an opinion would have disagreed that Sir William Osler had exercised a deeper and more far reaching influence on American medicine than any other man.⁶ In his lifetime, Osler made many important clin-

TABLE 2
ADDRESSES TO MEDICAL STUDENTS

Aequanimitas	1889
The Master-Word in Medicine	1903
The Student Life	1905
Man's Redemption of Man	1910
A Way of Life	1913

ical observations, and his scientific writings were manifold.

Still relevant to medical students today are his historical and philosophical writings, which are enhanced by his lucid literary style. As a medical historian and bibliophile, Osler collected works by men who made original and important observations in medicine. He encouraged his students to look up original sources. Currently, the *Oslerian tradition* is thought to center primarily on recognizing the value of a thorough knowledge of medical history in the teaching and practice of Medicine.⁷

Osler chose the history of medicine as the subject of his six lectures as Silliman lecturer at Yale in 1913. He described these lectures as an "aeroplane flight over the progress of medicine through the ages." The manuscript, publication of which was delayed by the war, was later edited by Fielding Garrison and others, and finally appeared in 1921, entitled *The Evolution of Modern Medicine*. This book, now almost 80 years later, is still valued as one of the best for beginning the study of medical history.

Another ready source of historical essays is found in *An Alabama Student and Other Biographical Essays*, first published in 1909. Osler had a strong conviction about the value of biography in education. In the preface of this book, he refers to his "constant appeal to students to take as their models the great men of the profession." The story of how he uncovered the life of an obscure southern physician, Dr. John Y. Bassett of Huntsville, Ala., illustrates well Osler's historical quest. Thirteen of Osler's historical essays were reprinted in this volume (Table 1). Three additional important biographical writings are his essays on Thomas Linacre, Michael Servetus, 9 and Louis Pasteur. 10

From 1912 to 1914, Osler wrote *Men and Books* snippets at the request of the editor of the *Canadian Medical Association Journal*, in which they appeared. These historical vignettes were later collected and reprinted by Dr. Earl Nation in 1959, 11 with a second publication in 1987.

Five of Osler's addresses, which could be classified as both philosophical and educational, were directed particularly to medical students. The consensus is that he was at his best when addressing student bodies (Table 2).

In *Aequanimitas*, his valedictory address to the medical students at the University of Pennsylvania in 1889, he stressed two qualities a young physician should develop above all others, qualities which would contribute to success and help in days of failure. The first was *imperturbability*, and the second was its mental equivalent, *equanimity*. He felt these insured calm judgment in effectively carrying out detailed medical observations, and promoted a mental calmness to help the physician or surgeon maintain composure in difficult situations.¹²

The address, Aequanimitas, was republished in book form in 1904 in a volume entitled Aequanimitas with Other Ad-

TABLE 3
OSLER'S BEDSIDE LIBRARY FOR MEDICAL STUDENTS

Old and New Testament Shakespeare Montaigne Plutarch's *Lives* Marcus Aurelius Epictetus *Religio Medici Don Quixote* Emerson

Oliver Wendell Holmes - Breakfast Table Series

dresses to Medical Students, Nurses, and Practitioners of Medicine. Attesting to its popularity, two additional impressions were published in 1905, and a second edition with three additional addresses came out in 1906. With the second edition, Osler stated he had been "deeply touched that many young men on both sides of the Atlantic should have written stating that the addresses had been helpful in forming their life ideals."

A list entitled A Bedside Library for Medical Students appeared on the last page of all editions of Aequanimitas. Osler recognized how long the hours were in a day filled with professional medical training, but suggested that "a liberal education may be had at a very slight cost of time and money." This could be accomplished, he noted, by reading for half an hour before going to sleep. He suggested ten books (Table 3), but recognized that "many others studied carefully in your student days would be helpful."

A modern version of Osler's bedside library has been compiled by members of the American Osler Society, and, not surprisingly, *Aequanimitas* heads the list.¹³ Truly an ideal book for medical students, the Eli Lilly Company distributed approximately 150,000 copies of the third edition to graduating medical students in the United States from 1932 through 1953.

The Master-Word in Medicine was delivered to medical students at the University of Toronto in 1903. To Osler, the master-word embodied "the secret of life as I have seen the game played " The master-word was work, and he emphasized the importance of the work habit. He recognized the bogie of overwork, of which "we hear so much." Osler drew upon the writings of Rudyard Kipling and Mark Twain, and cited Plato's ideal perfection and the three great lessons in life. Surely today as in the past, we should heed his declaration: "The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head." Harvey Cushing wrote, "Any student incapable of being uplifted by an exhortation of this kind is beyond the pale." Charles Roland's annotated study of this address is especially recommended for full appreciation of the literary allusions so common in Osler's addresses.¹⁴

The Student Life was a valedictory address given to stu-

dents at McGill University in April, 1905. He noted that the student life was not just a medical course but a life course, not ending as a medical student but continuing as a student general practitioner, student specialist, or student teacher. He felt "nothing will sustain you more potently than the power to recognize . . . the true power of life—the poetry of the commonplace of the ordinary man, of the plain, toil-worn woman, with their loves and joys, their sorrows and their griefs." Cushing considered *The Student Life* to be an intimate portrayal of Osler himself and the things for which he stood. The best of all his valedictories, this is an address to be read and reread with pleasure by every doctor, young and old. At a service for students of the University of Edinburgh in 1910, in connection with the Edinburgh meeting of the National Association for the Prevention of Tuberculosis, Osler delivered Man's Redemption of Man, one of his lay sermons. He opens with a quotation from the *Old Testament* (*Isaiah*). The history of man, he says, is the story of a great martyrdom, the inhumanity of man to man, outdoing even great atrocities occurring in nature. Continuing, he notes that man's redemption of man goes back to the great triumph of Greek thought: to make life a better thing than it is and to help in the service of man. After citing Galen's early attempts at scientific study of disease by experiment, he concludes that true progress would have to await the reawakening of the Renaissance. To Osler, the greatest glories of science lay in curing disease and ending human suffering, and, as examples, he offered the discoveries of anesthesia and Listerian surgery.

It was the eradication and prevention of acute infections typhus, typhoid fever, and smallpox—in which man's redemption of man was so well known. Moreover, much progress was made in preventive medicine and sanitation toward reducing death from cholera, yellow fever, malaria, and plague. In 1910, the most formidable single foe was tuberculosis. Its cause, how it spread, and how it could be prevented were known, but a cure for existing cases was not available. Osler was especially sensitive to the tuberculosis problem because it was so common for medical students and residents to fall victim to it. He was prophetic in stating that "only the prolonged and united efforts through several generations . . ." would bring tuberculosis under control. He urged a "new estimate of the value of man's life," recognizing, however, that "now alas! the cheapness of life is every day's tragedy!" Delivering Osler's address today, a speaker would simply include resistant strains of tuberculosis, hepatitis, AIDS, and urban homicide.

On a Sunday in the spring of 1913, A Way of Life was delivered to Yale students. Also a lay sermon, this address was a reflection of his own philosophy of life, both spiritual and professional. Understandably, he opened the address with the greeting, "Fellow Students." In summary, it was a plea to

do the day's work, to live in the day. He borrowed from Thomas Carlyle's familiar dictum: "Our main business is not to see what lies dimly at a distance, but to do what lies clearly at hand. He cautioned students to develop habits that avoid excesses of food, alcohol, tobacco, and passions of the flesh.

Truly, that entity called *the Oslerian tradition* was probably best recognized in Osler's own time by his own residents and students. Theirs was a fresh memory of his ideals and principles. The tradition continued with "second generation Oslerians," according to the late Dr. Rudolph H. Kampmeier, distinguished Professor of Medicine at Vanderbilt University. Some difficulty in defining the *Oslerian tradition* in the broad context of modern internal medicine has been recognized. The brief essays commended in this paper are not expected to serve as a cornerstone for that tradition, but they can serve well as guides and perhaps an inspiration to medical students throughout their careers.

A. H. T. Robb-Smith, in his Osler Oration given at the Royal College of Physicians in 1990, believed Osler should be remembered by "teaching medical students the humanity which Osler encouraged . . . to their patients and . . . to one another." ¹⁶ Possibly, as some writers have suggested, today's students are more humanity oriented.

In conclusion, the writings of Sir William Osler are most relevant to today's medical students, and, indeed, if an *Oslerian tradition* survives, it logically should take its origin in medical school. Students should be encouraged to take an interest in the history of medicine. The philosophical addresses by Sir William Osler remembered here would be a timely and useful addition to any medical student's library.

Acknowledgments

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References

- Osler W: The fixed period, in Osler W: Aequanimitas and Other Addresses to Medical Students, Nurses and Practitioners of Medicine, ed 2. Philadelphia, Blakeston's Son, 1906, p 407.
 Bean WB: Osler's clinical teaching, in Barondess JA, McGovern JP, Roland CG (eds): The
- Bean WB: Osler's clinical teaching, in Barondess JA, McGovern JP, Roland CG (eds): The Persisting Osler, Baltimore, University Park Press, 1985, p 91.
 - 3. MacCallum WC: A student's impression of Osler. Canad Med Assoc J 10:47-50, 1920.
- Roland CG: The palpable Osler: a study in survival, in Barondess JA, McGovern JP, Roland CG (eds): The Persisting Osler, Baltimore, University Park Press, 1985, p 10.
 Muirhead A: Grace Revere Osler. A Brief Memoir. Oxford, Oxford University Press, 1931
- Murthead A: Grace Revere Osler. A Brief Memoir. Oxford, Oxford University Press, 1931
 McCrae T: The influence of William Osler on medicine in America. Canad Med Assoc J 10:78-81, 1920.
 - 7. Keynes G: The Oslerian tradition. Br Med J 4:599-604, 1968.
 - 8. Osler W: Thomas Linacre. Cambridge, University Press, 1908.
 - 9. Osler W: Michael Servetus. Bull Johns Hopkins Hosp 21:1-11, 1910.
- 10. Osler W: Pasteur: An Introduction to a New Edition of Rene' Vallery-Radot's Life. London, Constable & Co, 1911.
 11. Osler W: Men and Books. Collected and Reprinted from Canad Med Assoc J (with introduc-
- Osler W: Men and Books. Collected and Reprinted from Canad Med Assoc J (with introduction by Earl F. Nation, MD). Pasadena, The Castle Press, 1959.
 - 12. Bryan CS: What is the Oslerian tradition? Ann Intern Med 20:682-687, 1994.
- Rakel RE: Modern version of Osler's bedside library. Perspect Biol Med 31:577-585, 1988
 Roland CG: William Osler's The Master-Word in Medicine. A Study in Rhetoric. Springfield, Charles C Thomas, 1972.
 - 15. Kampmeier RH: The Oslerian tradition. South Med J 63:345-349, 1970.
 - 16. Robb-Smith AHT: Osler's changing influence. JR Coll Physicians Lond 27:456-464, 1993.

Note: A more definitive bibliography may be obtained from the author.

Original Contribution

Management of Shoulder Dystocia

Susan B. Drummond, RN, MSN; Joseph P. Bruner, MD George W. Reed, PhD

Shoulder dystocia is diagnosed when after the delivery of the fetal head further progress towards delivery of the infant is prevented by impaction of the fetal shoulders within the maternal pelvis, requiring specific efforts to relieve the obstruction. This serious obstetric complication has been reported in 0.15% to 2.0% of all vaginal deliveries.1.2 Increased perinatal morbidity and mortality result from the development of shoulder dystocia; mortality varies from 21 to 290 in 1,000 deliveries when

shoulder girdle impaction occurs, and neonatal morbidity has been reported to be immediately obvious in 20% of surviving infants.³

Although preconceptual, antepartum, and intrapartum risk factors for the development of shoulder dystocia have been identified, some cases still occur unpredictably. Since shoulder dystocia can be unanticipated, experts agree on the need for practitioners to be familiar with maneuvers specifically designed to deal with this potentially devastating complication. The 20th edition of *Williams Obstetrics* lists ten distinct maneuvers that may be selected for use in the management of shoulder dystocia. No data exist, however, to support the effectiveness of one sequence of maneuvers over another. Each practitioner, therefore, should choose an algorithm for dealing with this situation and be prepared to recall it immediately in the event of such an unexpected occurrence.

The all-fours, or Gaskin, maneuver is one of the most recently reported procedures for management of shoulder dystocia. 5.6 The all-fours position is achieved when the mother

ABSTRACT

Objective: We sought to determine the management of shoulder dystocia currently practiced by physicians in the Middle Tennessee region and the frequency of use of the all-fours (Gaskin) maneuver in clinical practice.

Methods: A questionnaire was developed and sent to physicians in the Middle Tennessee area, asking how they would manage shoulder dystocia in specific practice scenarios.

Results: The methods most commonly used to manage shoulder dystocia are episiotomy, the McRoberts maneuver, and suprapubic pressure. Twenty-four percent of practitioners listed more than four options for the management of shoulder dystocia. Only 8% of those surveyed claimed knowledge of and use of the all-fours maneuver.

Conclusion: Educational programs should be developed to inform practitioners of additional options for the management of shoulder dystocia.

is on her hands and knees. This technique was first introduced in this country in 1976 by Ina May Gaskin, a lay midwife practicing at The Farm Midwifery Center, an alternative birthing site in Summerville, Tenn. Although this simple noninvasive technique has grown in acceptance among midwives⁷ and family practitioners,⁵ it has only recently been reported in the obstetric literature.6 Eighty-two consecutive cases of shoulder dystocia managed primarily by having the mother assume the all-fours

position were reported by Bruner et al.⁶ All infants were successfully delivered in less than six minutes with no maternal or perinatal mortality. Maternal morbidity consisted of only a single case of postpartum hemorrhage, which did not require transfusion; neonatal morbidity was limited to a single fractured humerus and three low Apgar scores. All morbidity occurred in cases with a birth weight >4,500 gm.

The purpose of this study was to determine familiarity with and use of various maneuvers for the reduction of shoulder dystocia by practicing physicians in the Middle Tennessee area served by Vanderbilt University Medical Center. We specifically sought information regarding awareness of the all-fours maneuver and attitudes about the implementation of this new management option.

TABLE 1

PRACTITIONERS WERE ASKED TO LIST THE ORDER IN WHICH THE FOLLOWING MANEUVERS WOULD BE UTILIZED

Abdominal rescue
Corkscrew maneuver
(Woods or Rubin)
Delivery of posterior arm
Episiotomy
Fracture of clavicle
Fundal pressure

McRoberts maneuver Suprapubic pressure Symphysiotomy Zavanelli maneuver (Cephalic replacement) Other (please describe)

Reprint requests to Dept. of Ob-Gyn, Division of Maternal-Fetal Medicine, B-1100 Medical Center North, Nashville, TN 37232-2519 (Dr. Bruner).

From the Departments of Obstetrics and Gynecology (Ms. Drummond and Dr. Bruner) and Biostatistics (Dr. Reed), Vanderbilt University Medical Center, Nashville.

TABLE 2

PRACTITIONERS WERE ASKED TO LIST THE ORDER IN WHICH VARIOUS MANEUVERS FOR REDUCTION OF SHOULDER DYSTOCIA WOULD BE ATTEMPTED IN FOUR DIFFERENT DELIVERY SCENARIOS

Scenario A	Scenario B	Scenario C	Scenario D
Standard hospital delivery	Standard hospital delivery	Birthing room, with	Birthing room, with
room, patient on standard	room, patient on standard	regional anesthesia,	"natural" childbirth
delivery table, regional	delivery table, with local or	and in-house	and on-call
anesthesia (epidural or	pudendal anesthesia, and	pediatric and	pediatric and
spinal) and in-house pediatric	on-call pediatric and	anesthesia support	anesthesia support
and anesthesia support	anesthesia support		

Materials and Methods

To obtain information regarding the management of shoulder dystocia, a questionnaire was developed and sent in two separate mailings to physicians in the 37-county Middle Tennessee Region of the Tennessee Obstetric Regionalization Program. This program was established to train health care providers to recognize the high-risk mother and infant, provide early management of these patients, and offer a means of consultation and referral. Five perinatal regions were created in Tennessee, corresponding to the five medical schools located within the state. The regional perinatal centers have made specialized care more accessible within their regions by providing personnel skilled in high-risk perinatal care; consultation and referral for health care providers in the region; high-risk patient transport; and continuing education for physicians and nurses.

In the questionnaire, 12 maneuvers described for reduction of the impacted shoulder were listed in alphabetical order and defined (Table 1). Respondents were asked to rate the maneuvers in the order they would attempt them in four different delivery scenarios (Table 2). Participants were instructed to list only those maneuvers they would actually use in the management of shoulder dystocia, and delete any maneuvers they would not normally use. Completed surveys were analyzed to determine how respondents manage the problem of shoulder dystocia, specifically the types of maneuvers they use and the frequency with which they use them.

Results

The questionnaire was initially mailed to 300 Ob/Gyn and family practice physicians in the Vanderbilt referral area. Many packets were returned unopened or incomplete with

TABLE 3

NUMBER OF DELIVERY SITUATIONS UTILIZED BY RESPONDENTS

No of scenarios	No of respondents
1	37.5%
2	13.7%
3	1.1%
4	47.7%

the explanation that the physician had retired, moved, or was no longer practicing obstetrics. A second mailing was sent to nonresponders. Eventually 123 (42%) completed surveys were returned.

Some respondents did not fully complete the questionnaire, indicating that they do not deliver in every one of the situations. This information is summarized in Table 3.

Episiotomy, the McRoberts maneuver, and suprapubic pressure overall were the top choices among respondents (Table 4). In fact, 5.7% of those surveyed listed no more than three choices and 23.9% listed no more than four choices for management.

When asked specifically about the all-fours maneuver, 46.6% had heard of this maneuver but only 8.2% had ever used it in their own practice (Table 5). Among those who had, most had used it once or a few times; one respondent had used it 12 times (Table 5)!

When asked if they would consider use of the all-fours maneuver in the future, 21.4% of practitioners responded "yes," 35.7% responded "no," and 42.9% were uncertain.

A disturbing number of responding physicians expressed willingness to use fundal pressure at some point in their algorithms. Although this technique is mentioned in current obstetric textbooks, it is generally not recommended as use-

TABLE 4
RESPONDENT CHOICES FOR MANAGEMENT OF

Scenario A	Scanario B		
	occinatio b	Scenario C	Scenario D
64.3%	63.0%	51.0%	54.5%
30.4%	30.0%	25.8%	27.8%
18.2%	17.8%	13.8%	15.1%
11.0%	11.4%	9.2%	11.5%
61.8%	62.2%	67.7%	60.4%
37.3%	36.4%	40.0%	36.5%
	30.4% 18.2% 11.0% 61.8%	30.4% 30.0% 18.2% 17.8% 11.0% 11.4% 61.8% 62.2%	30.4% 30.0% 25.8% 18.2% 17.8% 13.8% 11.0% 11.4% 9.2% 61.8% 62.2% 67.7%

Corkscrew = Woods and/or Rubin maneuvers.

TABLE 5

RESPONSES TO QUESTIONS ABOUT ALL-FOURS MANEUVER

Heard of all-fours maneuver	46.6%
Used all-fours maneuver	8.2%
How many times has all-fours	•
maneuver been used?	
3 respondents	2 times
3 respondents	3 times
1 respondent	5 times
1 respondent	12 times

ful in the management of shoulder dystocia. In Scenario A, 12 respondents would have used fundal pressure at some point in managing the shoulder dystocia. In Scenario B, nine respondents; in Scenario C, 14; and in Scenario D, 12.

Discussion

In this survey of physicians providing obstetric services in Middle Tennessee, the most disappointing finding was that only 76% of respondents listed more than four options for the management of shoulder dystocia (Table 4). Although most shoulder impactions are relieved by the first one or two maneuvers attempted, these mild cases are also the least likely to result in serious or permanent neurologic injury to the newborn. When initial maneuvers fail, the likelihood of successful delivery with minimal morbidity is dependent in large part on the ability of the practitioner to perform more complicated procedures, such as cephalic replacement8 or abdominal rescue, 9 in a timely fashion. Physicians who are familiar with only a few maneuvers to manage shoulder dystocia are doomed to utilize these maneuvers repetitively in difficult cases until enough force is applied to reduce the impaction traumatically. In addition to evidence that practicing physicians have a limited number of maneuvers at their command to deal effectively with shoulder dystocia, some physicians continue to utilize fundal pressure, a maneuver that has been condemned for many years because it tends to worsen, not relieve, shoulder impaction. Clearly, perinatal outreach centers are faced with a significant task in educating their referral physicians about recent findings in the management of

shoulder dystocia. 6.8,9

The results of this survey suggest that perinatal centers must focus their outreach efforts with specific programs designed to educate perinatal health care providers about those maneuvers developed to effectively reduce shoulder dystocia with minimal injury and death. Algorithms found to be successful at regional perinatal centers should be disseminated to referring physicians so that their management of this condition may become more successful.

It is unclear where the all-fours maneuver will fit into established algorithms of dealing with shoulder dystocia. Its apparent safety, efficacy, and ease of application suggest, however, that this new maneuver should be attempted near the beginning of any sequence of manipulations used to manage shoulder dystocia once it occurs. In the patient in the dorsal lithotomy position in a standard delivery room with regional anesthesia, the all-fours maneuver can be utilized after episiotomy, application of suprapubic pressure, assumption of the McRoberts position, and attempted rotation of the fetal shoulders with the Woods or Rubin maneuvers. In a birthing room, or labor-delivery-recovery room, with local or pudendal anesthesia, the all-fours maneuver might be a reasonable first step in the management of an impaction. Finally, if a difficult delivery is anticipated, the patient can be placed in the all-fours position before bearing down efforts are initiated. Future studies should determine how best to introduce the all-fours maneuver into a standard hospital practice.

References

- 1. Swartz DP: Shoulder girdle dystocia in vertex delivery: clinical study and review. Obstet Gynecol 15:194-206, 1960,
- 2. Acker DB, Sachs BP, Friedman EA: Risk factors for shoulder dystocia in the average weight infant. Obstet Gynecol 67:614-618, 1986.
- 3. Benedetti TJ, Gabbe SE: Shoulder dystocia: a complication of fetal macrosomia and prolonged second stage of labor with midpelvic delivery. Obstet Gynecol 52:526-529, 1978. 4. Cunningham FE, MacDonald PC, Gant NF, et al; Williams Obstetrics, ed 20, Norwalk, Conn.
- Appleton & Lange, 1997. 5. Meenan AL, Gaskin 1M, Hunt P, et al: A new (old) maneuver for the management of shoulder
- dystocia. J Fam Prac 32:625-629, 1991. 6. Bruner JP, Drummond SB, Meenan AL, et al: The all-fours maneuver for reducing shoulder dystocia during labor. J Reprod Med 43:439-443, 1998.
- 7. Gaskin IM: Shoulder dystocia: controversies in management. Birth Gazette 5:14-17, 1988.
- 8. Sandberg EL: The Zavanelli maneuver: a potentially revolutionary method for the resolution of shoulder dystocia. Am J Obstet Gynecol 152:479-484, 1985.
- 9. O'Leary JA, Cuva A: Abdominal rescue after failed cephalic replacement. Obstet Gynecol

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The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate. Call the TMF Physicians Health Program at (615) 665-2516 in Nashville. Telephone message service available around the clock.

Department of Health Report

The Tennessee Foodborne Illness Surveillance Network (FoodNet)

Timothy F. Jones, MD

Foodborne diseases cause approximately 76 million illnesses in the United States each year, accounting for 325,000 hospitalizations and 5,000 deaths. Foodborne illness has been estimated to cost as much as \$23 billion annually in this country. Given the high incidence, foodborne diseases are likely to be encountered commonly by physicians, and responding appropriately can help limit associated morbidity.

The most common known causes of foodborne illness in the United States are listed in Table 1. Many people are surprised to learn that Norwalk-like virus is the most commonly identified cause of foodborne illness. Even in the United States, 82% of foodborne illness is caused by unknown pathogens. This high rate of "unexplained" illness can be attributed to a variety of factors, including delayed reporting and inadequate investigation, failure to collect appropriate specimens for laboratory testing, illness due to viruses or other organisms that are difficult to identify, and as-yet-unidentified pathogens.

Surveillance for Foodborne Illness

In Tennessee, as in other states, the most common causes of foodborne illness are required to be reported to the Department of Health, which monitors surveillance data and investigates cases as appropriate. The traditional surveillance system is a "passive" one, relying on clinicians, laboratories, and hospitals to report "notifiable diseases" by telephone or in writing to their local health departments. Under the present system, it is commonly believed that only a small proportion of notifiable diseases are ever reported to the Department of Health. This highlights the importance of health care providers promptly notifying their local health departments about all cases of notifiable diseases (a list can be obtained by calling your local health department or the Tennessee State Health Department at 615-741-7247).

Routine surveillance in Tennessee in 1999 identified 653 cases due to *Shigella*, 563 cases to *Salmonella*, 257 cases to *Campylobacter*, and 54 cases to *E. coli* O157:H7. Isolates of

From the Tennessee Department of Health, Nashville. Dr. Jones, epidemiologist, is FoodNet Director at TDH.

TABLE 1

MOST COMMON KNOWN* CAUSES OF FOODBORNE ILLNESS
IN THE UNITED STATES†

Disease Agent	% of Total Estimated Foodborne Illness
Norwalk-like viruses	66.6
Campylobacter	14.2
Salmonella	9.7
Clostridium perfringens	1.8
Giardia lamblia	1.4
Staphylococcus food poisoning	1.3
Toxoplasma gondii	0.8
Yersinia enterocolitica	0.6
Shigella	0.6

* 82% of foodborne illness in the U.S. is caused by unknown pathogens.

† Adapted from Mead, EID 1999.

all cases due to these organisms are required to be sent to the Tennessee Department of Health laboratory, where they are confirmed and additional testing possibly performed.

FoodNet: A New System for Active Surveillance

In 1999, Tennessee began participating in the Centers for Disease Control and Prevention (CDC) Foodborne Diseases Active Surveillance Network (FoodNet). FoodNet is the foodborne disease component of the Emerging Infections Program. It is a collaborative project with nine states, the CDC, the Food and Drug Administration, and the U.S. Department of Agriculture. In Tennessee, FoodNet surveillance is performed in Davidson, Cheatham, Dickson, Hamilton, Knox, Robertson, Rutherford, Shelby, Sumner, Williamson, and Wilson counties (Fig. 1).

FoodNet carries out active surveillance for the following pathogens: Salmonella, Shigella, Campylobacter, E. coli O157:H7, Vibrio, Yersinia, Listeria, Cryptosporidium, and Cyclospora. The program aims to identify all cases of these



Figure 1. Tennessee counties targeted for active surveillance in FoodNet.

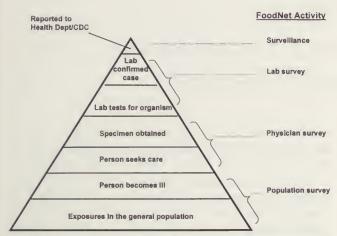


Figure 2. Burden of illness pyramid. Only a small proportion of foodborne illnesses are laboratory confirmed and reported to the health department. FoodNet involves several studies aimed at determining the factors which affect the many other steps which must occur before illnesses are reported (adapted from CDC materials).

illnesses in a defined population in Tennessee so that accurate disease rates can be calculated. Through *active surveillance*, all microbiology laboratories in these areas are visited regularly by health department staff to ensure that new cases of foodborne disease are reported to the state and the CDC. Though FoodNet active surveillance currently includes only these bacterial and parasitic agents, the Department of Health continues to monitor outbreaks from any cause, including Norwalk-like virus.

Because only a small proportion of foodborne illnesses are laboratory confirmed and reported to health departments (Fig. 2), FoodNet also includes several special projects to better understand the burden of foodborne illness in the United States. These include telephone surveys to assess the incidence of foodborne illness in the general population, physician surveys to determine clinician attitudes toward evaluating and preventing foodborne disease, and laboratory surveys to determine specimen handling practices (Table 2). Additional special projects attempt to use the intensive surveillance capabilities of FoodNet sites to better understand particular foodborne diseases and syndromes.

The growth of the FoodNet program in Tennessee has substantially improved the ability of the public health infrastructure to respond to foodborne illness in the state. Health department staff have participated in developing manuals and statewide training on investigating foodborne outbreaks, and work closely to support regional and county health departments in responding to public health needs. The state laboratory has added capabilities for identifying foodborne pathogens. The Tennessee Department of Health laboratory can now perform or arrange for polymerase chain reaction (PCR) testing for Norwalk-like virus, serology and augmented cul-

TABLE 2

SPECIAL FOODNET PROJECTS IN TENNESSEE

Active surveillance for all cases of nine common foodborne pathogens Monitoring of foodborne disease outbreaks

Population survey to assess the burden of illness in the community

Surveillance for Hemolytic-Uremic Syndrome

Listeria case-control study

Survey of laboratory practices

Physician survey regarding foodborne disease education for patients
Enhancing laboratory capacity for diagnosis of foodborne illness (PCR for
Norwalk-like virus, serology and augmented culture techniques for
pathogenic E. coli, PFGE "fingerprinting" of bacterial pathogens)

turing techniques for *E. coli* O157:H7, stool testing for shigalike enterotoxins, and pulsed field gel electrophoresis (PFGE) "fingerprinting" to determine the relatedness of bacterial isolates. PFGE testing is provided as part of PulseNet, a FoodNet program to allow rapid interstate comparison of bacterial DNA fingerprints, improving recognition and response to multi-state outbreaks.

Summary

Participation in FoodNet allows the Tennessee Department of Health to contribute to cutting-edge developments in monitoring and responding to foodborne illness in our own state and nationally. Tennessee-specific data on foodborne and other reportable diseases is available via the internet, by going to http://www.state.tn.us/health/, selecting "Programs and Services," then "Communicable Diseases," and then "Statistics." More information on the FoodNet program is available at: www.cdc.gov/ncidod/dbmd/foodnet or by calling the Tennessee FoodNet Program at (615) 741-7247.

References

 Mead PS, Slutsker L, Dietz V, et al: Food-related illness and death in the United States. *Emerg Infect Dis* 5:607-625, 1999.

 Hedberg CW, MacDonald KL, Shapiro C: Changing epidemiology of foodborne disease: a Minnesota perspective. Clin Infect Dis 18:671-682S, 1994.

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Vanderbilt Morning Report

The Syndrome of Inappropriate Thyroid Hormone Secretion

Case Report

A 25-year-old white man with a history of hypothyroid-ism presented to the endocrinology clinic for evaluation of chronic headaches. Two years earlier he was blinded in the right eye during a firework accident. Since that time he has had severe intermittent headaches occasionally requiring narcotics. The headaches were described as a frontal pressure, often starting in his right eye, without known precipitants. During the evaluation of these headaches, his primary care physician ordered an MRI scan of his head that revealed pituitary enlargement consistent with an adenoma. The mass was approximately 1.5 cm in diameter and exerted minimal extrinsic compression of the optic chiasm.

The patient had repair of a cleft lip during infancy. At age 20, he had hyperthyroidism diagnosed by his primary care physician, for which he received radioactive ¹³¹-iodine to ablate his thyroid. He then developed hypothyroidism and was treated with significant doses of levothyroxine in light of persistently elevated thyroid-stimulating hormone (TSH) levels.

At the time of evaluation in endocrinology clinic, he was receiving levothyroxine 0.25 mg once a day, diazepam for anxiety, and hydrocodone with acetaminophen as needed for headache. His family history was pertinent for maternal hyperthyroidism of unknown etiology. He smoked approximately one pack of cigarettes per day, seldom drank alcohol, and drank approximately one cup of coffee with caffeine per day. Review of systems revealed anxiety and tremulousness.

On physical examination, his temperature was 97.5°F, pulse 69/min, blood pressure 137/76 mm Hg, respiratory rate 19/min, and oxygen saturation of 98% on room air. He was alert and oriented with a nervous affect, but no tremor. His right eye had been enucleated after his accident, and visual fields were intact in his left eye. His neck was supple, without palpable thyromegaly or lymphadenopathy. His lungs were clear to auscultation, and his cardiovascular examination was normal. His abdominal examination was also benign.

Reexamination of initial laboratory studies from five years earlier revealed a total thyroxine (T_4) level of 16.2 µg/dl (normal 2.5-11), free thyroxine index (FTI) of 7.33 (normal 0.6-4.1), and TSH level of 10.34 µIU/ml (normal 0.32-5.0). It was

Presented by Deepak Talreja, MD, third year medical resident, Lawrence Wolfe, MD, and David Aronoff, MD, the Hugh J. Morgan chief medical resident, Vanderbilt Medical Center, Nashville. Edited by Jason Morrow, MD. at that stage that his thyroid was ablated with radioactive iodine. Following treatment with levothyroxine his thyroid tests showed a total T_3 of 8.3 ng/ml, free T_4 1.3 ng/dl (normal 0.8-1.5), and a TSH of 72 μ IU/ml. His thyroid function tests done at the time of presentation to the endocrinology clinic were remarkable for a total T_3 of 2.5 ng/ml (normal 0.6-1.8), total T_4 of 12 μ g/dl (normal 4.5-12), FTI of 12.5 (normal 4.6-11) and a TSH of 155.9 μ IU/ml (normal 0.4-6.). Basic chemistries and liver function tests were within normal limits. Other endocrine studies were unremarkable including a normal serum cortisol, testosterone, follicular stimulating hormone, luteinizing hormone, and insulin-like growth factor-1. The only elevated values were a TSH alpha subunit of 5.3 ng/ml (normal <1.0) and a prolactin level of 22.3 ng/ml (normal 2.1-17.1).

Treatment was started with liothyronine, a T_3 analogue, in an effort to more effectively inhibit pituitary production of TSH. After treatment with liothyronine 50 μ g three times a day for one month, he still had a TSH elevation of 172 μ IU/ml, confirming the presence of non-suppressible pituitary production of TSH.

Discussion

As with most elements of the endocrine system, the hypothalamic-pituitary-thyroid axis is regulated by an elaborate negative feedback system. The neurons of the hypothalamus release thyrotropin-releasing hormonc (TRH) under the influence of central neurotransmitters. TRH stimulates the pituitary gland to release TSH, which in turn stimulates production of T_4 and T_3 by the thyroid gland. The dominant inhibitor of TSH production is negative feedback by T_3 which inhibits DNA transcription of the genes for the alpha and bcta subunit of TSH. Competing stimulatory and inhibitory influences generally achieve a steady state serum thyroxine level that can vary appropriately with physiologic stresses.

When elevated serum thyroxine levels are detected, the patient should be assessed for clinical evidence of thyrotoxicosis. Clinically, euthyroid hyperthyroxinemia can be due to altered thyroid hormone binding proteins, transient acute illness, thyroid hormone resistance, autoantibodies, or a number of drugs that produce elevated T_4 concentrations. Clinically thyrotoxic patients with hyperthyroxinemia can be grouped by their thyroid gland radioactive iodine uptake (RAIU). Those with low thyroid RAIU have iodine-induced thyrotoxicosis, thyroid malignancy, struma ovarii, factitious

hyperthyroidism, or destruction-induced thyroiditis. Those with elevated RAIU should undergo TSH measurement. Typically, the high levels of circulating T₃ and T₄ in hyperthyroidism suppress TSH to undetectable levels. Those with suppressed TSH may have Grave's disease, multinodular goiter, a hyperfunctioning nodule, or a trophoblastic tumor. When a patient with hyperthyroidism presents with a TSH level that is elevated or even within the normal range for euthyroid individuals, a central cause of hyperthyroidism should be suspected, since this is in effect a syndrome of inappropriate TSH secretion.²

Interestingly, TSH-secreting pituitary tumors are seen in patients with all levels of thyroid function from hypothyroidism to hyperthyroidism. The two most common clinical situations are: (1) compensatory enlargement in the setting of primary hypothyroidism, and (2) pituitary-induced hyperthyroidism.³ Pituitary-induced hyperthyroidism, which accounts for less than 1% of all cases of hyperthyroidism, can be classified as neoplastic or functional. Neoplastic pituitary hyperthyroidism is due to non-suppressible pituitary secretion of biologically active TSH that overstimulates an otherwise normal thyroid gland. Functional TSH-induced hyperthyroidism is usually due to resistance of pituitary thyrotropes to the inhibitory effects of thyroid hormones. While laboratory evaluation shows hyperthyroxinemia, very few patients have metabolically active hyperthyroidism because elevated thyroid hormone levels suppress TSH to a high-normal value.

TSH-producing tumors can induce hyperthyroidism as severe as Grave's disease, but usually without the associated ophthalmopathy and pretibial myxedema. The diagnosis of TSH-induced hyperthyroidism requires clinical evidence of hyperthyroidism, hyperthyroxinemia/hypertriiodinemia, inappropriately high or normal levels of biologically active TSH, and evidence that thyroid activity decreases when serum TSH normalizes. Diagnosis of pituitary resistance depends on demonstration of metabolic indices of hyperthyroidism, inappropriately elevated biologically active TSH, absence of a pituitary tumor, and supranormal response to TSH.

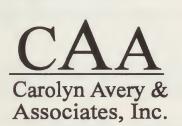
Other endocrine abnormalities that can occur in these patients include concurrent elevations of growth hormone, prolactin, and deficiencies of gonadotropin and ACTH. Patients with TSH-secreting tumors typically have an excess of the TSH alpha subunit in the serum as our patient above did. In fact, the presence of a molar ratio greater than one of the alpha subunit to intact TSH, suggests TSH-induced hyperthyroidism as opposed to central resistance to thyroid hormone. However, this test may be unreliable in men with primary hypogonadism and postmenopausal women because the alpha subunit is a component of the gonadotropins as well as of TSH.

In addition to laboratory studies, a visual field examination should be performed in all patients with this tumor, since partial loss of visual fields may result from compression of the optic chiasm, which favors surgical management as described below. Central nervous system imaging with CT scan or preferably MRI should be performed to confirm the existence of a macroadenoma with or without such compression. After resection, the diagnosis can be histologically confirmed by immunochemistry, differential staining, and electron microscopy to confirm the presence of thyrotropes.

Management of thyrotrope pituitary adenoma can be directed at either the pituitary or thyroid gland. The preferred approach is surgical resection of the pituitary lesion and/or irradiation. Transsphenoidal pituitary resection is most commonly performed, and it is superior to irradiation, which is rarely curative and takes longer to show an effect. Alternatively, medical therapy can include antithyroid drugs to lower T_4 levels, and beta blockers to control peripheral manifestations of thyrotoxicosis. \Box

References

- Smallridge RC: Throtropin-secreting pituitary tumors. Endocrinol Metabol Clin 16:765-791, 1987.
 Emerson CH: Central hypothyroidism and hyperthyroidism. Med Clin North Am 69:1019-1034, 1985.
- Chayen SD: TSH producing piuitary tumor: biochemical diagnosis and long-term medical management with octreotide. Hormon Metabolism Res 24:24-28, 1992.
- Faglia P: Inappropriate secretion of thyrotropin by the pituitary. Hormone Res 26:76-99, 1987.
 McCutcheon IE: Surgical treatment of throtropin-secreting pituitary adenomas. J Neurosurg 73:674-683, 1990.



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TMA Alliance Report

AMA Foundation

Tennessee has been the leader in raising funds for the AMA Foundation for over 28 years. This *track record* is *impressive*. To date, the Tennessee Medical Association Alliance has raised over \$2.6 million for medical students and medical schools. Eighty million dollars have been contributed nationally to the nation's medical schools in the past 50 years.

This year the AMA Foundation is commemorating its 50th anniversary. The mission of the AMA Foundation is to advance health care through support of programs in education, research, and service.

The success of the Medical Alliance in raising funds for the AMA Foundation is due mainly to two things: 100% of the contribution is given to medical schools, and the contributor decides which medical school will receive the contribution. Because the AMA Foundation is a non-profit organization, all contributions are tax deductible.

In Tennessee, the TMAA and your local medical alliance are instrumental in raising funds for the AMA Foundation. Please support your local alliances, and send your donations through them when they request your help this year. Our most successful fund-raiser is the Sharing Card. We appreciate your attention to and support of this fund-raiser scheduled for the holiday season. Please remember the AMA Foundation when making memorials and honorariums, and for thanking that "special physician" who takes care of you and your family.

Thanks to each and every one of you who supports the AMA Foundation. Remember, we are helping ensure the quality of the physicians of tomorrow. Your donations are a legacy from one generation of physicians to another.

Carol Hudson AMA Foundation Chairman, Tennessee

In Memoriam

Paul T. Drenning, MD, age 75. Died July 4, 2000. Graduate of Hahnemann University School of Medicine. Member of Memphis-Shelby County Medical Society.

Robert T. Miller, MD, age 80. Died July 19, 2000. Graduate of Tufts University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Robert Louis Mueller, MD, age 70. Died June 10, 2000. Graduate of University of Illinois College of Medicine. Member of Knoxville Academy of Medicine.

James R. Quarles, MD, age 71. Died June 30, 2000. Graduate of University of Tennessee College of Medicine. Member of Robertson County Medical Society.

Elmer W. Sydnor, MD, age 81. Died June 30, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Claude Raymond Webb, MD, age 83. Died June 5, 2000. Graduate of University of Tennessee College of Medicine. Member of Northwest Tennessee Academy of Medicine.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during June, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Karen R. Brock, MD, Parrottsville
Louis A. Cancellaro, MD, Johnson City
Kimberly M. Claypool, MD, Crossville
David B. Dunn, MD, Hermitage
Stephen A. Fahrig, MD, Kingsport
Deborah D. German, MD, Nashville
William R. Kendrick, MD, Cordova
Aleshia L. Lunsford, MD, Johnson City
Gregory E. Neal, MD, Madison
John B. Phillips, MD, Parsons
Mary C. Schanzer, MD, Memphis
Jerry L. Smith, MD, Chattanooga
Gregory W. Snodgrass, MD, Oak Ridge
Gertrude O. Stone, MD, Nashville

Eratum: In the August issue of *Tennessee Medicine*, we published the wrong middle initial for Dr. Neal as a PRA recipient. *Gregory E. Neal, MD*, Madison, received his Physician Recognition Award.

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Chattanooga-Hamilton County Medical Society DeAnn K. Champion, MD, Chattanooga

Knoxville Academy of Medicine Pierce C. Alexander, MD, Knoxville Michael T. Casey Jr, MD, Knoxville David L. Cash, MD, Knoxville Clifton R. Tennison Jr, MD, Knoxville

Lakeway Medical Society
Penny L. Knight, MD, Morristown
John C. Lumb, MD, Morristown

Lawrence County Medical Society B. Keith Tolar, MD, Lawrenceburg

McMinn County Medical Society Donald F. Ramsey Jr, MD, Athens

Memphis-Shelby County Medical Society

Hugo A. Caballero, MD, Germantown Michael D. Koplon, MD, Memphis J. Gregory Staffel, MD, Memphis

Northwest Tennessee Academy of Medicine *Michael N. Moore, MD,* Dyersburg

Putnam County Medical Society
Timothy R. Collins, MD, Cookeville
Rosalia R. Dominguez, MD, Cookeville

Stones River Academy of Medicine Daniel B. Azabache, MD, Murfreesboro

Smith County Medical Society Floyd Reed Jr, MD, Hartsville

Sumner County Medical Society
Leslie F. Bennett, MD, Hendersonville

Williamson County Medical Society Sharon D. Wright, MD, Brentwood

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

Vanderbilt University Medical Center

Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Oct 2-3 Amputation, Surgery, Prosthetics and Orthotics
Oct 7 2nd Annual Symposium for Primary Care Physicians
on Learning Disabilities

Oct 27 Symposium on Inhaled Nitric Oxide

Oct 27-28 Laryngovideostroboscopy and Therapeutic Implications

Nov 3 3rd Annual HIV/AIDS Symposium Nov 29-Dec 1 Prescribing Controlled Drugs

November Updating Gastroenterology for Practitioners

Dec 1 Improved Treatment of Common Neurological Condi-

tions

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Please contact Bernadette Steckel, PhyAmerica Physician Services, Inc., at 800-476-5986 or fax CV to 419-861-8019.

Dec 1-2 26th Annual High Risk Obstetrics Seminar

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

Continuing Education Schedule

Memphis

Oct 6 Kaleidoscope of LD Conference Dec 1-3 Clinical Update in Ophthalmology

Knoxville

Nov 8 5th Annual Pediatric Trauma & Emergency Medicine

Nov 14-16 Advanced Cardiac Life Support

Nov 29-30 Pediatric Life Support

Chattanooga

Oct 26, Nov 9, Nov 30, Dec 14

Medical Knowledge Self-Assessment Program (MKSAAP) Review: Fall-Winter 2000-2001 (Part A)

Nov 17-18 3rd Annual President's Forum: Complementary Alternative Medicine

Nov 30-Dec 17th Annual Internal Medicine Update

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.



Emergency Coverage Corporation, an affiliate of Team Health, has full- and part-time Emergency Department opportunities in northern and Thomson, Georgia, and Crossville, Knoxville and Morristown, Tennessee. We are seeking physicians who are BC/BP in EM or BC/BE in IM or FP and who will reside in the community they serve. ED experience with ATLS and ACLS certifications required.

Emergency Coverage Corporation provides flexible schedules, competitive compensation and paid malpractice insurance.

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FAMILY PHYSICIAN or MEDICINE-PEDIATRIC PHYSICIAN needed in Crossville, Tennessee, for multispecialty group. No obstetrics required. Approximately three call nights per month. Group is replete with family-oriented physicians in a family-oriented community. Cumberland Medical Center Hospital is listed in top 100 hospitals in the nation. Contact Doug Carpenter, MD, FAAFP, at (931) 484-5141 or FAX CV to (931) 484-5620.

CLARKSVILLE, TENNESSEE—Emergency Medicine. Full-time opportunity with a private EM practice in a community hospital for a physician BC or BP/BF in EM or primary care with EM experience. Send CV to Terri Grant, Clarksville Emergency Physicians, 741 Madison Street, Suite C, Clarksville, TN 37040. Fax (931) 552-6663. E-mail: MMPTerri@AOL.COM

OAK RIDGE, TENNESSEE—Emergency Physician. A full-time ED opportunity exists for a physician BC/BP in EM or BC/BE in a primary care specialty with EM experience. Facility has a high volume and acuity with multilayered physician staffing. Located 15 minutes from Knoxville, Oak Ridge offers excellent schools, superb quality of life, and easy access to many lakes and recreational amenities. Opportunity offers competitive compensation, paid malpractice insurance, equitable scheduling, and no call. Please call (865) 481-1922 or fax your CV to Jim Henry, MD, FACEP, c/o Michele Disney, at (865) 481-1532.

ATHENS, TENNESSEE—Southeastern Emergency Physicians, an affiliate of Team Health, has one Emergency Department opportunity in Athens for a physician who is BC/BP in EM or BC/BE in IM or FP. Facility has an annual ED volume of 16,500. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. Located halfway between Knoxville and Chattanooga, Athens is home to Tennessee Wesleyan College. A plethora of recreational events are offered on the nearby Ocoee River where the 1996 Summer Olympic white water events convened. For more information, please call Laurie Cordova at (800) 909-8366, ext. 3377 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

FRANKLIN, TENNESSEE—Internal Medicine Opportunity. Vanderbilt Health Services, Franklin, an off-campus multispecialty practice owned by Vanderbilt University, is seeking a fourth BC/BE internist for full-time practice. Located in a beautiful area that offers high quality of life, excellent schools, shopping, recreational, and entertainment opportunities. Compensation includes a full range of benefits, including college tuition assistance for children. Resume/CV may be faxed to Administrator at (615) 791-7286 or e-mailed in MS Word format to Michael.Goodwin@mcmail.vanderbilt.edu. Sorry, no J-1 opportunities available.

GREATER KNOXVILLE, TENNESSEE—HOSPITALIST – Internal Medicine Opportunity. Team Health is seeking BC/BE physicians in IM for a full-time opportunity with a Knoxville area hospitalist group available July 1, 2000. Located in the foothills of the Smoky Mountains, Knoxville is home to The University of Tennessee and Women's Basketball Hall of Fame. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call, For more information, call Laurie Cordova at (800) 909-8366, ext. 3377 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

KNOXVILLE, TENNESSEE—Southeastern Emergency Physicians, a Team Health affiliate, has several clinical and directorship opportunities in the greater Knoxville, TN, area for EM, IM/Peds, or FP physicians with Emergency Medicine experience. These facilities have annual ED patient volumes ranging from 30,000 to 45,000. Knoxville is home to The University of Tennessee, Women's Basketball Hall of Fame, and annual Dogwood Arts Festival. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. For more information, call Laurie Cordova at (800) 909-8366, ext. 3377. Sorry, no J-1 opportunities available.

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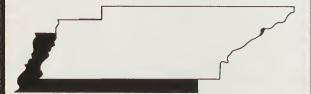
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References—References should be limited to 20 for major communications and 10 for case reports. All references must be cited in the text in numerically consecutive order, not alphabetically. Personal communications and unpublished data should be included only within the text. The following data should be typed on a separate sheet at the end of the paper: names of first three authors followed by et al, complete title of article cited, name of journal abbreviated according to *Index Medicus*, volume number, first and last pages, and year of publication. Example: Olsen JH, Boice JE, Seersholm N, et al: Cancer in parents of children with cancer. *N Engl J Med* 333:1594-1599, 1995.

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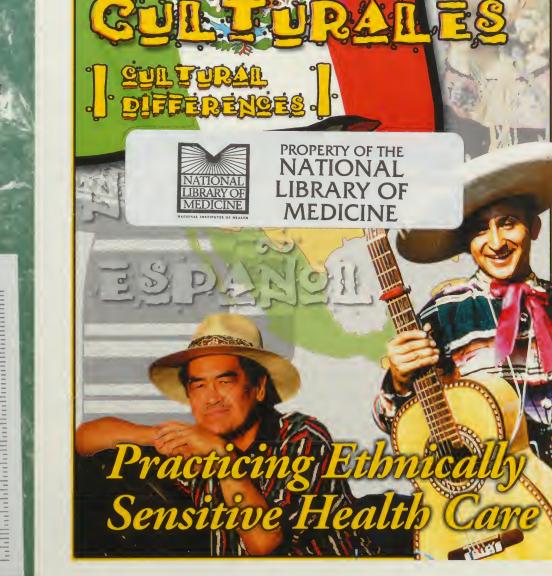
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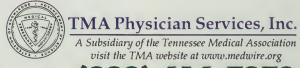
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John B. Thomison, MD

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Barrett F. Rosen, MD

Exercising Your Franchise

As is sit down to write this message, the Republicans have finished their convention and the Democrats are about to wind down. We will now have about three months of intensive campaigning ahead of us. While we will be inundated with information that the candidates want us to hear and read, we must try to get to the specifics that each one is really espousing if we are to make intelligent decisions.

By the time this is published the campaigns will be in *high* gear and most of us will be well past our saturation point. I think most of us agree that the process is much too drawn out and therefore too expensive. Maybe the English do have some ideas worth copying!

As physicians we have a unique position in society. We certainly need to analyze each candidate (for *all* offices) for positions that coincide with whatever are our personal ideas and philosophies. In addition we have a duty to society and our patients to try to see that issues that may transcend partisan politics are addressed in ways to protect our patients and their interests and rights. If we are not prepared to act as spokespersons to make these needs heard, then I feel strongly that we have failed to complete our role as healers.

When we see a need to make our voices heard, we must speak up! All forums can be used to make sure that those who want to lead our country know what the effect of ideas and proposals may have on the health of our patients. If we feel strongly enough about these issues (especially where medical care is directly affected) there is no reason that we cannot use time in the examination room to impart this kind of information as long as it is done in the name of dissemination of information, not espousing political philosophy.

Because of our unique position, patients and the public often look to us to explain many of this type of issue. It is important that we take the time to familiarize ourselves with as many of the facts as we can. I realize that it is often difficult to pin down exactly where various candidates stand on particular issues. There are several ways to try to get such information. You can write directly to candidates and ask for proposals and stands they have taken. Obviously what you will get back will be packaged by their campaign managers. If you are fortunate enough to be able to speak directly with a candidate or at least someone fairly high in the campaign staff, you may be able to get more specific information. Obviously the media will have at least superficial summaries of various stances, etc. The internet may be a good source of more detailed information. Sites such as www.issues2000.org do offer some more complete views. Wherever you go to get stands, make sure that what you read is reasonably accurate and as non-biased as possible.

When we go into the voting booths next month we can only hope that all votes cast are done with knowledge and information, and we don't want to be moaning in a year or so that whoever is elected has done things that make the delivery of *good* health care more difficult and no one can say "I told you so." Lets continue to try to protect our patients, and always ask "Is it good medicine?"

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John B. Thomison, MD

Hippocrates Revisited

I SWEAR by Apollo the physician and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation....
I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients....
With purity and with holiness I will pass my life and practice my Art....
Into whatever houses I enter, I will go into them for the benefit of the sick....

Hippocratic Oath c. 400BC

Oh, East is East, and West is West, and never the twain shall meet Till Heaven and Earth shall meet as one round God's great judgment seat.

Rudyard Kipling, "The Ballad of East and West"

What did Kipling know? In his day, the sun never set on the British Empire, which covered the globe. In one of his stories Kipling describes the trip of a young British officer returning home to England on leave from his post in India. It took weeks. Kipling couldn't have foreseen that in less than a century East could meet West in a few hours, and all the lines that separate us would become blurred and eventually vanish. East and West intermingle daily, and regularly entwine, not infrequently with a strangle-hold.

The ease of relocation, personal longings for a better life, war, and natural disaster, among other things, have resulted in a continual, even virtually continuous, redistribution of populations, so that East and West have become no longer ethnic but simply geographic entities. Despite this, assimilation has been far from simple, and ethnic islands persist in the new location, having been simply transplanted from one location to another.

Owing to the influx over the past few years of industry of various sorts, requiring a wide range of knowledge and skills, Tennessee has attained one of the lowest rates of unemployment in the nation. This had made it a haven of opportunity for the hordes of immigrants from Asia, Africa, Latin America and the Caribbean, as well as Europe and all corners of the globe, flooding onto our shores. While not everyone has been overjoyed by this wave of immigrants, and there are those who are quite volubly opposed and want it stopped, business generally has welcomed these newcomers with open arms because they fill a growing void in the labor pool. They have shown themselves generally to be willing and industrious workers, often bringing needed skills with them, and eager to sharpen those and learn new ones. Many businesses have opened up educational opportunities for them to develop their capabilities, and the immigrants have for the most part been quick to take advantage of these opportunities.

No matter the good will and earnest efforts of both the local inhabitants and these new arrivals, however, problems of assimilation are inevitable. The solution of those problems demands studied effort and understanding that will often strain the capabilities of all involved. Nowhere are the possibilities for both good and ill greater than in the ministry of healing.

To give less than their very best under every circumstance is beneath the calling, and an abrogation of the oath, of doctors and nurses, and by extension of all those various professional people who assist them, clumped together these days under the odious classification of heath care providers. Hence, I shall cursorily dismiss any such dismal concerns about negative relationships between the sick and injured and those charged with their care, and shall only say, again quoting Kipling, that there can be no East nor West, North nor South, nor border nor

breed nor birth where such needs exist. It is how we were trained.

That matter being disposed of then, what should characterize our relationship with our immigrant patients? Professionally, of course, it should go without saying that all patients are treated equally, with our best efforts. It is in our interpersonal relationships that difficulties are apt to arise. The most obvious of these is language barriers, which though immediately apparent are not readily remediable. There are besides language other less obvious areas of difficulty, however, that can be equally frustrating for both the patient and the doctor. Furthermore, these may vary markedly from one culture to another, and mastering, or even recognizing, these variations in interpersonal relationships in a multicultural practice poses major difficulties for today's practitioners. At the same time, becoming familiar with and proficient in handling those difficulties will serve both the practitioner and patients well by relieving tensions and promoting understanding. It is neglected to the detriment of both.

In a paper elsewhere in this issue we are given a glimpse into the personal needs and expectations of Hispanic patients and their families. It is an eye-opening introduction to what lies in wait for the unwary, dealing as it does not only with differences in body language, personal space, and formalities, but also their differing expectations from the health care system and the doctor. The opportunities are therefore legion for the doctor to be viewed as impolite, callous, or cruel. The simple solution is to say, "This is my country and they are intruders here," and to deny that problems exist, a solution that is likely to be in fact impolite, callous, and even cruel. This paper therefore should prove invaluable to practitioners who have a substantial Hispanic practice.

In addition, though, it should come as a caution to those dealing with other immigrant populations in their practice, since each has its own customs, with its own particular set of prohibitions, etiquette, formalities, protocols, and proprieties. Carried to its fullest, it is a daunting prospect. Nevertheless, the caring physician who will make an effort to cope with it will reap the reward of improved doctor-patient relationships, and consequent better patient care.

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Would It Have Affected the Outcome?

(Loss Prevention Case)

To the Editor:

This letter is in response to the column by Dr. Avery, Loss Prevention Case of the Month, August 2000 edition (Avery JK: Would It Have Affected the Outcome [[Loss Prevention Case of the Month], *Tenn Med* 93:289, August 2000). I enjoy reading his column and the presentation of each of the cases. By sharing these difficult cases with us and seeing how things went wrong, it may help all of us from preventing these problems in the future.

I take strong objection though to his final comments in this article. In this case the patient died as a result of complications from his initial injury. His last comment was on the "The pain and suffering experienced by this patient and the ultimate death of an otherwise healthy breadwinner." His comment implies that for some reason the result is more tragic because the patient was a breadwinner. In medicine I would like to think that we treat all patients equally. My wife and four children at this stage are not breadwinners. I think the loss of any of them would be much more tragic than the loss of myself, even though I am classified as the breadwinner for our family. Ideally, we treat all of our patients with the same standard of care and grieve the same over the death of any of our patients.

I do not think that Dr. Avery meant any harm by his statement. In a journal like this though, I feel this comment should be corrected.

Laurent Legault, MD 2204 Pavilion Drive Kingsport, TN 37660

Response

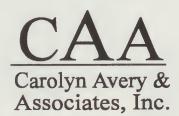
Thank you for your readership of the "Case of the Month," and for your comments on the August case, "Would It Have Affected the Outcome?" You are exactly correct in the thinking that we, and our colleagues, value our patients and grieve with them over outcomes that are not what we would expect or want and the economic consequences of the outcome are not a primary consideration. Unfortunately, the world in which we live puts a monetary value on "pain and suffering" and the family circumstances in which a loss occurs. We would call pain and suffering "noneconomic" and would contend with you that it should have no place in the medical

malpractice arena, but, in reality, it does. The "value" of this case in an elderly retired person with no dependents would, however, have been far less in the eyes of the jury even if the actions of the physicians had been the same.

I guess that in the quarter century that I have been looking at cases like this, I have begun to try to think like the lay men and women who make up the juries before whom cases like this one are tried. Medical malpractice is not a scientific enterprise and too many times, whether or not the physician makes a mistake is irrelevant to the proceedings, the entire focus becomes the cost in financial terms.

Is this the way it ought to be? In my opinion, no, however this is the way it appears in far too many instances.

J. Kelley Avery, MD PO Box 159012 Nashville, TN 37215-9012



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Physician Labor Organizations:

Desperate Doctors Seek Relief Through Negotiation

Brenda Williams

"As my old chief used to say, desperate situations call for desperate measures."

Tennessee Medical Association President Dr. Barrett Rosen says it is desperation indeed that has led to an about-face in the medical industry and a historic foray into the world of organized labor.

"Frankly, physicians as a group over the years have been pretty conservative and pretty strongly antiunion—they can't believe they're actually thinking about going to a meeting that has some sort of AFL-CIO backing," he says. "That is just so against their background, but yet that's how frustrated they are and I understand that, because we all are."

Since 1999, the battle to give physicians some bargaining power has been fought on three fronts: in Congress, where the Physician Negotiation Bill would change federal antitrust laws and allow doctors to bargain collectively with health maintenance organizations; in state legislatures, where the State Action Doctrine would allow doctors to negotiate under state supervision; and within the American Medical Association, which has formed a national labor organization to assist employed physicians and medical residents in negotiating their contracts.

PRN Steps In "As Needed"

The first venture into "organized" medicine by organized medicine is Physicians for Responsible Negotiation, or PRN. As president of the first official physicians' labor group, Dr. Susan Hershberg Adelman says the reception from her colleagues and the public has been phenomenal. "There were some early editorialists who started fussing about this being the way for overpaid doctors to be more



Adelman

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

overpaid, but there wasn't a lot of it," Adelman recalls. "People really recognized the trouble doctors are having today providing good care for their patients and getting paid for it."

Within two weeks of its formation, PRN began working on its first case, representing a group of doctors who worked in a staff model HMO in Detroit. Petitions were filed, a favorable ruling was given by the National Labor Relations Board, and contract negotiations are currently winding down. PRN is also representing occupational medicine physicians who work for a chain of New Jersey clinics owned by Concentra, and is talking to several other resident groups looking for extra clout in dealing with their employers. In August, PRN also filed a petition to represent residents and fellows at Lutheran General Hospital in Park Ridge, IL—officials say it's the first time that residents in a private hospital have sought collective bargaining rights since the NLRB decision regarding Boston Medical Center extended the protection of federal labor laws to residents in a private hospital.

In addition to going to bat as a national labor organization, PRN is working with a large state medical society and a large county medical society on setting up their own PRN affiliates—a "local," as Adelman describes it. Members had asked their medical societies to set up a labor organization, but quickly found it was an expensive prospect. "You need lawyers, constitutions, bylaws, and all sorts of things," Adelman says. "Now that we exist, they would be duplicating what we're doing." The logical answer, she explains, is to create an affiliate that would use PRN's structure and divide the various tasks between the national and local organizations.

Campbell Bill in Congress

While PRN steams ahead, the AMA continues its fight to pass the Quality HealthCare Coalition Act of 2000—also known as the Physician Negotiation Bill or the Campbell



Rosen

Bill—in Congress. The U.S. House gave its approval on June 30, 2000, but the measure still faces the long road of Senate consideration. AMA says its lobbyists are still looking for Senate sponsors. Sponsored in the House by Reps. Tom Campbell (R-CA) and John Conyers (D-MI), the bill aims to give doctors some of the control they have lost in the current medical climate.

TMA President Rosen

supports the AMA's legislative battle. He says it took a lot to turn the nation's physicians from a conservative, staid community into a frustrated, desperate group willing to align themselves with Big Labor—and he knows from personal experience.

"It's very frustrating, when I decide on a course of treatment and I have to go through 16 different steps to figure out what drug they (the patient) can and can't take, or are allowed to be given," says Rosen, an orthopedic surgeon in Nashville. "If it's a surgical decision, I have to go through several hoops and steps, and get my

staff to dot i's and cross t's and make sure they say the special code words to get things approved, and it's burdensome, and then sometimes it's not approved." He adds, "It's about regaining control over patient care."

TMA Pushes for State-Supervised Negotiations

In Tennessee, TMA is concentrating its efforts on the State Action Doctrine, a measure that would allow non-employee physicians to bargain collectively with managed care companies under state supervision. TMA's Senior Vice President and General Counsel Marc Overlock says the State Attorney General would act as an intermediary, assessing the market power of an MCO, deciding if contract negotiations will help or hinder competition, and then making a ruling on whether negotiations can proceed under the doctrine.

The biggest battle has been TMA's efforts to erode the influence the insurance industry has on state officials and the minds of the public. Overlock says that influence was highly visible during legislative committee hearings. "The Deputy

Attorney General was there talking and he would make a comment, the committee would ask him a question, and then the insurance industry lobbyist would run up and whisper in his ear and then he would answer the question. Health committee members were getting ticked off (because) that was going on." Further, he says TMA lobbyists had to dispel fears that the bill would allow collusion among physicians. "The Deputy Attorney General argued that once the bill passed, physicians would be able to legally collude ahead of time—before any state official was involved. That's insane, because if any doctors get together ahead of time and collude—outside of the protections in the State Action Doctrine bill—they would likely be found in violation of federal antitrust law. Even if we pass the State Action Doctrine, they still can't boycott and they certainly can't strike ahead of time."

Overlock says this legislation offers hope to the majority of physicians in the state. "I get a lot of calls from doctors saying, 'Let's form a union,' but the way the law stands now, the unions can't help unless the doctors are employees or

residents or fellows at the university level," he says. "I know the percentage of doctors across the country who are employed is on the rise—it's somewhere in the neighborhood of 45%—but most of the doctors in private practice or medical groups cannot benefit from a union at this point." Passage of the State Action Doctrine and the Campbell Bill, he says, will

—Marc Overlock
TMA Sr. Vice President and General Counsel

"For the first time in a long time, doctors

will get not only to level the playing field.

but to take some control over the rules

they have to follow in getting their

patients cared for."

be the turning point for these physicians, who cannot be helped by labor groups like PRN.

Currently, TMA is gearing up for a brand-new fight for the bill in January. The measure passed out of the full House Health Committee in the final days of the legislative session, but it got no further. Overlock sees it as a victory. "I think we surprised the insurance industry in passing that—I don't think they were expecting that." He adds, "I want to take some credit here, but you also have to include the utter frustration on the part of the average voter about managed care." He says state lawmakers evidently heard and responded to that frustration.

TMA's lobbyists will be working in the new session to illustrate that frustration, and to calm the fears of the Governor and lawmakers about the price tag attached to the State Action Doctrine. TMA Director of Governmental Affairs Scott Smith says state officials are worried about adding new requirements to managed care while trying to coax new MCOs to join TennCare; they also claim it would force them to hire more people within the State Attorney General's office to review

and oversee physician negotiations. "Suffice it to say, it was going to be over \$100,000," Smith explains. "We don't necessarily think it's going to be as expensive as they indicated, but we are reviewing our options on how to lower the fiscal note."

Overlock adds, "The nice thing is, Texas has passed this bill. Everybody's claiming this will drive up health care costs, but in Texas we've got it in a petri dish, so hopefully we can prove that it won't." Both Smith and Overlock say they are optimistic, but realize the push for a State Action Doctrine in Tennessee will be an uphill battle.

More Than Money

At each level, opponents of physician labor organizations punctuate their arguments with dollar signs, while supporters say money is only part of the picture.

"To be frank, money is an issue, but the reason it's an issue is that over the past five to ten years, whereas the cost of giving medical care has continued to go up, the provider's portion of that package has dropped significantly," says Rosen. "The money is going to people and places that are not providing the care, and that's very frustrating. Not only have they taken control of the care away from me, but they're making life more difficult, more complicated, and more

expensive to run my office, and then they're paying me less, and it's the worst of all worlds."

PRN's Adelman blames not only managed care, but the Balanced Budget Act of 1997, which left the nation with scarce resources to render health care. "In this environment, where health plans and hospitals and other health care employers are struggling, no doctors are realistically coming to us and saying, 'We're going to negotiate big raises.' What

they're coming to us with is the hope that health plans will listen to them and not cut back in places where they're harming patient care." She emphasizes, "Those have really been the issues and they've been recognized fairly well by the public. Doctors are defending their patients."

Is Big Labor the Answer?

Joining organized labor is not a perfect-world situation for the noble profession of medicine, but it seems to be the only recourse. As TMA's president, Rosen admits he has a few qualms about having physicians answer to the National Labor Relations Board or the State Attorney General's Office.

"I have concerns when you add any other level of bureaucracy into the formula, but if that's the only way it can be done...," Rosen pauses, and then adds, "Doctors are leaving

practice. They're retiring much earlier than they have before. I can truly say that so far, they have beaten on me but they haven't beaten me bad enough to run me out yet...but I have a lot of physicians who tell me they're ready to get out."

Overlock reiterates that doctors are a disillusioned group. "They went to medical school with a now romantic notion that they were going to spend most of their time caring for patients. Instead, they spend most of

their time fighting to get to do that. For every five minutes they spend actually doing patient care, they're spending 45 minutes on the telephone, on hold, doing paperwork, just trying to document that what they're recommending is appropriate. After a while, it gets tiring. For the first time in a long time, doctors will get not only to level the playing field, but to take some control over the rules they have to follow in getting their patients cared for."

"People really recognized the trouble doctors are having today providing good care for their patients and getting paid for it. Doctors who've done so have just about uniformly come to us because they're having trouble giving patients the kind of care they need to give."

—Dr. Susan Hershberg Adelman, President Physicians for Responsible Negotiation

Financial Woes Increase Faculty Turnover at Medical Schools

Leigh Ann Roman

The University of Tennessee Health Science Center will recommend decreasing its incoming class next year as a result of faculty attrition that comes after years of state budget difficulties and problems with TennCare.

The medical school and related health care professional schools in Memphis lost 65 full-time faculty members this year, leaving

the institution with a total faculty of 634 in its college of medicine and related schools such as dentistry, pharmacy, and allied health sciences. The school usually accepts 165 incoming medical students each year but likely will recommend bringing that number back to 150, says Bill Rice, chancellor of the UT Health Science Center.

Rice cites a central reason for the loss of faculty: "I would attribute it primarily to the fact that we are being out-competed for good faculty by other schools (who have) more resources to support research and clinical programs." The cause of the low support is a combination of state budget woes and TennCare funding problems, Rice says. "I think the worst part of the whole thing is that the faculty's attitude toward the state of Tennessee has become one of giving up hope, and I think that makes our faculty easy pickings, if you will, for others who are trying to attract people."

Faculty morale picked up a bit in late summer with the proposal to consolidate the Regional Medical Center at Memphis and the UT Bowld Hospital into a University Medical Center to be housed in the 19-story Baptist Memorial Hospital building in Midtown. The plan was approved by the medical board, and the UT Board of Trustees was slated to deal with the matter in September. Shelby County Mayor Jim Rout also appointed an advisory committee to do an outside review of the proposed hospital. The proposal "has really pepped up a lot of our faculty members," Rice says. "They see this as being a better resource for them, for teaching, and

"I think the worst part of the whole thing is that the faculty's attitude toward the state of Tennessee has become one of giving up hope, and I think that makes our faculty easy pickings, if you will, for others who are trying to attract people."

> —Bill Rice, Chancellor UT Health Science Center

program development." A 3.5% salary increase also has improved the faculty outlook, and the university is trying to build on that by using money from open faculty positions to further increase the salaries of those who have stayed on, Rice says.

Not all medical schools in the state have suffered financial difficulty and faculty attrition to the same extent as

UT, but the possibility is on the horizon, officials say.

Dr. John Sergent, chief medical officer for Vanderbilt Medical Group, says turnover at Vanderbilt has not been higher than normal, "but if we continue to see the TennCare volume increase, it will become an issue. Like UT, our departments stand on their own two feet, and the departments are very dependent on the collections of clinical faculty." About 91 of Vanderbilt's full-time medical faculty of 1,200 left in the1999-2000 year, which is about average, Sergent says. Currently, about 25% of the Vanderbilt Medical Group's patients are TennCare. The TennCare impact is felt most strongly in certain departments such as orthopedic trauma and the pediatric divisions, he says. "If that percentage of our business goes up much further, there is no doubt that faculty retention will become a major issue.

Tanya Henderson, director of public relations for Meharry Medical College, says that school had a full-time faculty of 200 in 1999-2000, compared to a full-time faculty of 249 in the previous academic year. But John Britton, associate vice president for marketing and communications, says that TennCare has not played a significant role in those departures. They were for the



Rice

Leigh Ann Roman is a freelance writer based in West Tennessee.

usual reasons, such as someone following a spouse to a new job, or someone leaving for a higher position at another medical school.

Despite the seemingly high turnover at Meharry, the academic practice plan has remained stable, with about 145 to 150 full-time physi-

cians in the last two years, says Dr. Herman Ellis, chair of the Meharry Medical Services Foundation. About 42% of the foundation's payments come from TennCare. "I think the doctors who come here are committed to the mission of Meharry...to serve the poor and underserved," Ellis says.

The James H. Quillen College of Medicine at East Tennessee State University has about 199 full-time faculty and lost about 10 in the 1999-2000 year, says Joe Smith, media relations coordinator. The school has lost about 30 faculty over the last three years, and the reasons cited included salary, moving to private practice, moving to a position of advancement, or moving to a preferred location. The turnover of the last three years has been normal, except in family medicine, says Dr. Ronald D. Franks, dean of medicine and vice president for health affairs at ETSU. "We have had difficulty in recruiting and retaining faculty members in this area over the past five years because of compensation issues."

ETSU has benefitted somewhat from TennCare because under TennCare the formula for distribution of graduate medical education (GME) funds was changed. That money, which was distributed to hospitals under Medicaid, now flows directly to medical schools and is apportioned on a pro rata basis, Rice says.

UT's hospitals received \$30.1 million in GME funds in 1994, before TennCare. The medical school received \$22.8 million for 1999-2000. ETSU received only \$723,000 before TennCare and now receives \$8.3 million, Franks says. ETSU has used the additional money to increase the number of physicians in its primary care residency training programs, to hire more primary care faculty members and to support rural training sites for its residents, Franks says.

Vanderbilt also saw a cut in GME funds from \$13.9 million in 1994 to \$12.4 million in 2000. Meharry saw a slide of \$3.7 million to \$2.2 million for those same years. Of course,

GME FUNDING CHANGES

School	1994 (pre-TennCare)	2000
UT	\$30.1 million	\$22.8 million
ETSU	\$ 723,000	\$ 8.3 million
Meharry	\$ 3.7 million	\$ 2.2 million
Vanderbilt	\$13.9 million	\$12.5 million

"It all boils down to you get what you pay for. If you don't reward your employees, eventually they're going to quit."

—Brigitte Miller, Associate Professor of Ob-Gyn at Bowman Gray School of Medicine TennCare originally cut out all GME money and it only was restored under Gov. Don Sundquist's administration.

The loss of GME funds was only one financial slam for UT. "I had fewer dollars for support of programs in the year 2000 than I had when I came here in fiscal 1993," Rice says.

The university saw \$5 million cut from its budget in the mid-1990s because of budget problems at the state level.

The impact on clinical faculty also has been felt strongly, Rice says. About 31% of UT Medical Group's gross charges are for TennCare patients, and that has cut into the income of the clinical faculty. At least one faculty member who left UT says salary was not the main issue.

Dr. Brigitte Miller, an associate professor in obstetrics and gynecology, moved this year to the Bowman Gray School of Medicine at Wake Forest University in Winston-Salem, N.C. Miller complains that the clinical demands at UT were so high that she barely had time to teach or do research. "I worked 12to 14 hours per day just seeing patients, without any time for research, and getting an extremely poor salary," she says, adding that UTMG had a very inefficient message system for physicians and a poor billing system. They also hired poor quality nurses and paid them poorly. "It all boils down to you get what you pay for," she says. "If you don't reward your employees, eventually they're going to quit."

More state funding and changes in TennCare would have improved the situation, but it would not have solved the whole problem, she says. She chose to leave after "I'd lost any hope that the situation at UT and UTMG would change in the moderate future." When Miller was informed of the number of faculty who have left UT, she said, "It serves them (UT) right."

Rice says the quality of education at the school has not been affected by recent faculty departures, and he is optimistic that the situation will turn around. If it does not, he says, "I think what you have will be a sort of snowball effect unless we can stabilize the situation with our faculty. "I would anticipate that we would have to either further downsize (classes) or perhaps take students we wouldn't otherwise take," Rice says. "I think the very best students are going to be affected by this. Someone choosing between Tennessee and Georgia or Tennessee and Arkansas might well choose to go to the other place."

UT HEALTH SCIENCES CENTER

Year	Departing Faculty
1997-1998	46
1998-1999	56
1999-2000	65

Practicing Medicine

Loss Prevention Case of the Month

The Question: Not What But How?

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A 48-year-old woman consulted the ophthalmologist about loss of visual acuity in her left eye. She had seen another ophthalmologist three years earlier with the same complaint after she tried to wear contact lenses for two weeks and stopped. Some tests were done, and the patient understood that she would hear from this physician. She heard nothing. The complaint persisted and become worse, and she now came seeking a second opinion as to the problem with vision in the left eye.

The previous physician was contacted for records of his encounter with this patient, which indicated that a diagnosis was made of retro bulbar optic neuritis of the left. The patient denies ever having been told of that diagnosis. These records also indicate that she had 20/20 acuity in the right eye and 20/40 in the left.

Examination on this visit revealed some slight worsening of the visual acuity in the left eye. She returned to the same clinic and was seen by another physician, this time a resident, whose evaluation revealed a significant worsening of the vision in the left eye. The acuity on this occasion was 20/200 on the left and 20/25 on the right. She also had allergic conjunctivitis, for which some steroid eye drops were prescribed. The previously diagnosed retro bulbar optic neuritis was not mentioned by the physician on this visit. She was to return in a month.

On her return visit, the focus of the complaints was on the "irritation for two and one half months." In the record there

was the comment, "OS-vision cloudy (nerve damage)." Further treatment for the allergic conjunctivitis was prescribed. Visual acuity in the left eye was better than it had been on her previous visit, 20/60 as compared to a reported 20/200 on the previous examination, but slightly worse than it had been on the visit before that. She returned six months later with visual acuity of 20/20 in the right eye and 20/400 in the left eye. At this visit the diagnosis of retro bulbar optic neuritis was again used to account for the deterioration of vision in the left eye, and the changes in the right eye were to be managed by a change in her right lens. The comment/diagnosis was, "Hyperopia/Presbyopia, optic neuritis-stable." The plan was "right lens change only." She was to return in a year, at which time her pupils would be dilated for the examination.

She continued to be followed for about two years, with symptomatic treatment for the "allergic conjunctivitis," while the vision in the right eye slowly continued to deteriorate. She had a number of lens changes for the vision in the right eye. Eventually, she began to show some significant changes in the visual fields with some optic atrophy in the right eye. An MRI showed a large suprasellar mass measuring about 4 cm in diameter. The mass was removed but there was disruption of the pituitary stalk. The tissue diagnosis was meningioma, not completely removed.

Following the operation, there was no improvement in the vision in the left eye, and the vision in the right eye (20/60) deteriorated to the extent that the patient fit the criteria for legal blindness.

A lawsuit was filed charging the physician who was the principal care giver with failure to conduct the appropriate examinations that would have led to the correct diagnosis. After a large judgment was reached against the physician who saw her most of the time, that physician filed suit against another ophthalmologist who had seen the patient during the course of this tragic process and bore some responsibility for the management of the case, forcing some participation in the loss by the second doctor.

Loss Prevention Comments

As the title suggests, the study of this case can only be profitable to us if we look into not what happened, which is obvious, but at how this could happen in the practice of an

accomplished group of ophthalmologists. Six years before the correct diagnosis was made, she complained of deteriorating vision in the left eye. Tests were suggestive but not confirmatory. A year after this initial complaint, while driving her car, the patient had a period of "blurred vision" which spontaneously cleared. She had a relatively severe headache at that time, and the possibility of getting a CT scan was discussed. The doctor stated in his record, "I do not have a strong reason to do so at this time and she is in agreement to treat the headache." A year later, in this patient with continued complaints of "blurred vision, left," the impression was "retro bulbar optic neuritis, left."

On repeated visits to the eye clinic, the case was complicated, and the significant history was probably obscured by complaints of allergies, scratchy eyes, self-medication with Hypotears, and a diagnosis of allergic conjunctivitis. As the vision slowly deteriorated, the old diagnosis of retro bulbar optic neuritis on the left appeared repeatedly in the record. Except for the initial examiner, nobody suggested further studies. Almost the entire management of this patient's complaints took place in the office of this practice group, exami-

nations by various physicians. At least one resident physician was involved in her care. She requested different doctors in the group on different visits, and it is easy to see that continuity of care could have become a problem.

Monocular loss of vision, as it occurred in this case, may indeed be due to retro bulbar optic neuritis. It is usually associated with some demyelinating process such as multiple sclerosis, when there is usually other suggestive symptomatology present. Monocular vision loss coming on gradually and progressing slowly should suggest some intracranial tumor, as was present in this case. The deviation from an acceptable standard of care occurred when the possibility of tumor was not considered and ruled in or out as the correct diagnosis. I would speculate, and it is pure speculation, that the several examiners did not take into consideration the length of time this patient had been complaining of the loss vision in the left eye. I am sure that when physicians for whom we have great respect make a diagnosis, it is very easy to go along with their thoughts, and fail to assure ourselves that the position arrived at by one of our colleagues is the one we would "take to the bank."

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Health Care on a Tightrope: Is There a Safety Net?

Part II: The Safety Net

David M. Mirvis, MD

As we considered in the previous Health Policy Report,¹ the 40 million people in the United States who do not have adequate health insurance receive care through a complex network of programs, facilities, and providers that make up the "health care safety net." In that report, we focused on the financing of care for these people. In this issue, we will focus on the structural components of the safety net, and we will consider three questions: (a) what facilities make up the safety net? (b) what are the stresses on this system? and (c) do we even need a distinct safety net?

What Makes up the Safety Net?

The safety net provides health care services for a broad mix of persons who are uninsured, difficult to serve, or discriminated against, or who cannot for whatever reason receive care elsewhere. Not all patients fall into the safety net for financial reasons. In rural areas, for example, the safety net is required for geographic reasons (that is, to provide care at a local level rather than forcing residents to travel for emergency or basic care) rather than for financial reasons.²

In some countries, such as France, the safety net is a nationally coordinated system of hospitals and clinics. In the United States, in contrast, the safety net is a locally determined compilation of hospitals, clinics, and providers that varies widely from community to community. As summarized by Baxter and Mechanic³ the "overwhelming evidence is that safety nets are local. There is no one 'safety net' that an observer can point to. The interaction of composition, concentration, financing, and community context defines each local safety net." The local determinants of the structure as well as the adequacy of local safety net, as referred to by Baxter and Mechanic, ³ include:

• the *composition* of the safety net, that is, the mix of patients requiring its services that is broader in areas with lower levels of employer-based insurance, greater poverty, more

young families, more legal or illegal immigrants, etc;

- the *concentration* of services, that is, the focusing of services in or around a single facility (as in Dallas) or as part of a coordinated and comprehensive public health and hospital system (as in Denver);
- the *level of local financing* that represents, on average, 16% of operating funds⁴ but which ranges from as high as \$53 per resident in Dallas (in 1995) to \$6 per resident in Cleveland³; and
- the *local or community context*, that is, the level of community commitment to the care of the poor, uninsured, etc., which is high in New York and in Los Angeles but much lower in other regions.

These variables result in a wide variation in services that are available to those in need. In a recent study of 60 randomly selected communities,⁵ the percent of uninsured residents reporting difficulty in receiving needed care ranged from 18.5% to 41.4%—a range not explained by the sociodemographic or the health care status of the uninsured. Cunningham⁵ summarized these results as demonstrating that "the system of providing care to the uninsured varies considerably across the country and is driven largely by state and local policies that affect the organization and financing of the health care safety net, as well as voluntary efforts on the part of individual clinicians and community organizations."

There are, clearly, national forces as well as local ones that affect the functions of the safety net. The most important of these is financing, and the regulations that accompany it. As discussed in the previous report, the Medicaid and Medicare programs provide the bulk of direct funding for the uninsured. In 1995, payments for 45% of inpatient days of care in large urban hospitals came from Medicaid and an additional 20% of days of care were paid for by Medicare.³ These direct payments from governmental programs are supplemented by indirect payments to safety net hospitals as disproportionate share (DSH) and medical education payments that provide extra support for facilities that have disproportionate load of poor patients or that have medical

From The Center for Health Services Research, University of Tennessee, Memphis. education responsibilities. In 1996, DSH payments contributed \$21.4 billion to public hospitals, and medical education payments contributed an additional \$9.6 billion.⁶

With these governmental payments come limitations and requirements; that is, there are strings attached. For example, DSH payments can be given only to certain types of hospitals; Medicaid programs must provide, at a minimum, a designated basket of services to a defined patient group; and only certain medical residents count for computing medical education payments and payments can be used only to pay residents serving in certain situations

What Are the Stresses on the Safety Net?

This mix of local and national factors that determines the structure and function of the safety net helps us understand the stresses that the safety net now face. One critical stress is the growing number of citizens who rely upon the safety net. The number of uninsured in America continues to rise.⁷ Whereas the number of businesses offering employer-based insurance has risen, the percent of employees opting for coverage has fallen-mostly because of the high costs of the plans that are offered.8 The rising number of immigrants and the expanding base of poverty all generate new dependencies upon the safety net. Cuts in federal and state Medicaid eligibility criteria and in other programs for the poor have also expanded the pool of the uninsured or underinsured. For example, within one year of enacting the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (that is, "welfare reform") that sought to reduce welfare roles by enhancing the employability of welfare recipients, 49% of women and 29% of children previously covered by Medicaid became uninsured.9

Other stresses reflect changes in the health care market and in financing that threaten to undercut both the fiscal and the political support for the safety net. These stresses include the growing competitiveness of many local health care markets; the expansion of Medicaid managed care; changes in state and federal health and welfare policies; cuts in local, state, and federal funding; and changes in hospital governance.

There has never been competition for the uninsured. What has increased, however, is competition for the publicly insured patients. As the market constrains the price for care in all hospitals, rates paid by public sources begin to appear more attractive. This is especially true in markets with excess capacity that makes space available at relatively low marginal cost (that is, the cost of accepting an additional patient, assuming that all fixed costs are already covered by the preexisting patients). This competitiveness is maximal for the public patient who is relatively healthy, leading to "cherrypicking" by private health care systems, and leaving safety net hospitals with only the sickest—and most expensive—cases. Safety net hospitals are then forced into competitive

markets but with common disadvantages of having a social stigma, having fewer amenities, and being located in undesirable neighborhoods.

Medicaid managed care has grown rapidly; almost every state has some form of managed care structure as part of their Medicaid program, and 54% of Medicaid recipients are enrolled in a managed care plan. 10 This expansion has several serious impacts on the safety net.3,4,11 Safety net hospitals that function within a managed care plan must bid and negotiate reimbursement rates, rather than rely upon fixed or cost-based revenue streams. If negotiated rates are too low, financial disaster can result. If rates are too high—corresponding to the high costs of care in public hospitals-managed care organizations will not enter into contracts with the safety net program. Patient flow, and hence revenue flow, into safety net hospitals may fall because publicly funded patients have an expanded choice of facilities through their managed care organizations' contracts and their increased attractiveness to private systems. Those who wish to remain in a safety net facility may be unable to do so if their managed care organization does not have a contract with it. This has happened, at least in some but probably not all markets;4,12,13 births in safety net hospitals have fallen by an average of 36%. Much of the reduction in some public hospitals, such as The Regional Medical Center in Memphis (The Med), has been predominantly in uncomplicated births; complicated and high-risk cases remain in the safety net.

In addition, capitated payments generally do not include special payments such as DSH and medical education funds that public hospitals would have received if the patients were in traditional fee-for-service plans. (Tennessee is an exception in regard to medical education payments; see Summitt et al¹⁴ for a discussion of Tennessee's approach to this.) Furthermore, whereas many of the special payments are based on inpatient services, managed care's emphasis is on outpatient care, further reducing these payments. All of these forces have greater impact when the Medicaid managed care plan is comprehensive, as in Tennessee, and leave few groups in traditional fee-for-service systems and in states which do not have explicit policies protecting the safety net. Cunningham¹⁵ has shown that access to care for the uninsured in a community falls as the penetration of managed care rises.

All sources of revenue for the safety net have been restrained. Tightening reimbursement rates for private patients has restricted or almost eliminated the option of cost shifting to cover indigent care. Many state Medicaid programs, especially those with predominant managed care plans, have cut or limited the growth in special payments. Changes in federal regulations have limited DSH payments. For example, the Balanced Budget Act of 1995 included a 5% cut in DSH payments for 1996 and a continuing cut of up to 30% for 2000. Meanwhile, the diffusion of publicly funded cases to

private hospitals has shifted the remaining DSH funds away from safety net hospitals. Medicare payments of all types are continually being threatened as concern over the possible insolvency of the Medicare trust funds looms ahead. And state and local governments have reduced subsidies, having identified the safety net as a large target to help them meet their own budgetary problems.⁶

Finally, privatization of public hospitals to gain managerial and strategic flexibility has reduced their safety net functions. ^{16,17} This is especially true when the conversion is to a for-profit status. For example, Needleman et al¹⁷ reported a 25% reduction in uncompensated care provided by former public hospitals in Florida which converted to for-profit status.

Rural safety net programs face even greater problems than metropolitan ones do.² Safety net programs in rural areas not only serve the uninsured and the poor, but provide needed local services to all residents; serve as the coordinating or focal point of the entire regional health care system; and play a major role in the local general economy. Because of the sparseness of resources, all providers may be considered part of the safety net, and "one poor administrative decision, the prolonged illness of a provider or the decision of a physician to leave a hospital, can have large effects on the stability of the whole health care system."²

Do We Need a Safety Net?

Given these significant stresses that threaten the foundations of the safety net, do we need to reexamine the need for such a system? This question may come from two seemingly opposite views of health care financing—from those that promote universal government-funded insurance coverage, and from those that promote a purely free-market approach to providing health care services. Those promoting national health insurance assert, with understandable rationale, that the safety net is an artifact of not having a national policy that assures financing for care to everyone. If everyone were insured, we would not need a designated safety net. Those promoting a free-market perspective assert that the private health care market, whether for-profit or not-for-profit, can and would take up the slack if a publicly funded safety net were to dissolve.

While the proponents of each appear to come from opposite sides of the political spectrum, the two proposals are linked. Having universal coverage would greatly facilitate the market approach; money would follow the current users of the safety net into the private health care market. And an adequately developed private market would be needed to provide care to all those newly insured under a universal coverage plan. Indeed, the numbers of Medicaid recipients and the uninsured who have left traditional safety net facilities for private care once they had a choice provided by expanded

insurance supports the contentions of each group as well as the interdependence of their positions.

However, neither of these alternative views provide adequate reason to abandon the safety net. Comprehensive federal universal coverage seems a politically remote dream even for its most ardent proponents. Rather, the baby steps of incremental coverage expansions will continue to replace the giant steps of a national health law for the near future. Even these incremental steps have not helped the problem; the number of uninsured continues to grow as additional groups are brought under governmental programs. And even if universal coverage were to appear, a safety net of some sort (for mental illness, for example) may still be required to provide for medically needed services not covered by the basic plans. Reliance on the model of "new federalism," in which more responsibility for social programs devolves to the states, suggests that rescue funds from the federal government are unlikely.

Relying on private systems to provide care is appealing in an overwhelmingly capitalistic society. The free market has, with some arguments, demonstrated the capability of expanding and contracting supply to match demand for a wide variety of products and services. For several reasons though this approach raises several concerns for safety net health services. On a philosophical basis, providing health care—like public safety and defense and unlike television sets—is a public good, and may even be considered a positive claim right—that is, a right that citizens can demand of their government. Can society depend upon a private system to provide what is in essence a societal obligation to a substantial proportion of its citizens?

From a business perspective, it is not the primary responsibility of private systems to provide care to the needy. As previously argued, the major commitment of private hospitals is to the population as a whole rather than to the poor or uninsured. They rightfully expect to generate adequate incomes if not profits, while facing the increasing difficulty in funding charity care by cost shifting from other payers and meeting head-on the same cuts in governmental funding affecting safety net hospitals. They also have the greatest ability to control or reduce the safety net care they provide in response to fiscal pressures that threaten their other missions—and they do so. Evidence has shown, for example, that between 1990 and 1994, the percent of all hospitals with uncompensated care costs exceeding 10% of total costs that were private fell. 19 It has also been shown that private hospitals rely upon safety net facilities as safety valves—to reduce their burden of charity care.²⁰ The growth in the for-profit segment has reduced public service, even after considering the extra taxes that are paid.²¹ For all of these reasons—as well as others related to providing fundamental externalities such as supporting community infrastructures, medical education, biomedical research, and supporting high-cost and highly specialized

but financially unprofitable services needed by the whole community—relying solely upon the private sector to meet a growing societal obligation seems risky.

What Are We To Do?

Given the need and faced with major threats, what are we as a society to do? A poll of metropolitan households conducted in May, 1999 by the National Association of Public Hospitals⁴ indicated that 97% of respondents felt it to be very or somewhat important that the uninsured have a place to receive care, and approximately 90% reported that, as a nation, we should commit tax dollars to support the safety net.

An important set of options falls upon the safety net hospitals. Various public hospitals have, in addition to reducing costs to promote themselves to managed care plans, restructured themselves by vertical integration into larger systems to enhance access to paying patients, promote more efficient management, and sell scarce primary and tertiary care services. Others (the Med, for example) have formed their own managed care organizations^{11,22} or have become private.^{16,17} Community health centers have pursued horizontal integration to form networks better able to negotiate with managed care organizations to sell them needed primary care services. And health departments, which have been at the greatest disadvantage in a competitive marketplace because of weaker services and a more bureaucratic management structure, have, in a growing number of cases, opted out of the primary care market or have become integrated into other public systems (such as the Health Loop in Shelby County).

While these efforts may be necessary, it seems unlikely that they will be sufficient. Almost by definition, a safety net system will rely upon public support to care for those who have no other source of care. What is needed is a public commitment to the care of those who, for whatever reason, have fallen off the mainstream tightrope and depend upon the

safety net for their very survival. This commitment may be in the form of funding to support a distinct safety net, developing a cooperative system in which the public sector becomes fully engaged in the market with adequate support to succeed, or any number of other options.²³ What is important is to remember that we as a society will be judged by how we care for those least able to care for themselves.

References

- 1 Mirvis DM Health care on a tightrope: is there a safety net? Part I: Uncompensated care. Term Med 93.161-163, 2000
 - 2. Ormond SA, Wallin S, Goldenson SM. Supporting the Rural Health Care Safety Net. Wash-
- ington, DC, The Urban Institute, 2000.

 3. Baxter RJ, Mechanic RE: The status of local health care safety nets. Health Aff 16:7-23, 1997.
 - 4. Gage LS, Regenstein M: Bolstering the safety net Health Aff 18:254-257, 1999.
- Cunningham PJ, Kemper P Ability to obtain medical care for the uninsured How much does it vary across communities? *JAMA* 280.921-927, 1998.
 Fishman LE, Bentley JD: The evolution of support for safety-net hospitals. *Health Aff* 16:30-
- 7. Budetti J, Duchon L, Schoen C, et al. Can't Afford to Get Sick: A Reality for Millions of Working Americans. New York, The Commonwealth Fund, 1999. 8. Thorpe KE, Florence CS. Why are workers uninsured? Employer-sponsored health insurance
- in 1997. Health Aff 18.213-218, 1999. 9. Garrett B, Holahan J Health insurance coverage after welfare. Health Aff 19:175-184, 2000.
- 10. Health Care Financing Administration. National Summary of Medicaid Managed Care Programs and Enrollment. http://www.hcfa.gov/medicaid/trends98.htm, Health Care Financing Administration, Washington, DC, April, 1999
- 11. Lipson DJ, Naierman N. Effects of health system change on safety-net providers. Health Aff 15:33-48, 1996.
- 12. Meyer GS, Blumenthal D. TennCare and academic medical centers: the lessons from Tennessee. JAMA 276.672-676, 1996.
- 13. Bindman AB, Grumbach K, Bernheim S, et al. Mcdicaid managed care's impact on safetynet clinics in California Health Aff 19:194-202, 2000. 14 Summitt RL, Herrick RR, Martins M Addressing a state's physician workforce priorities
- through the funding of graduate medical education, the TennCare model. JAMA 279:767-771, 1998.
- 15. Cunningham PJ. Pressures on safety net access: the level of managed care penetration and uninsurance rate in a community. *Health Serv Res* 34:255-270, 1999.
- 16. Desai KR, Lukas CVD, Young GJ. Public hospitals: privatization and uncompensated care. Health Aff 19 167-772, 2000. 17. Needleman J. Lamphere J. Chollet D. Uncompensated care and hospital conversions in
- Florida. Health Aff 18 125-133, 1999 18. Buchi KN, Landesman BM Health care in a national health program: a fundamental right,
- in Huefner HP, Battin MP (eds): Changing to a National Health Care. Salt Lake City, University of Utah Press, 1992.
- 19. Cunningham PJ, Tu HA. A changing picture of uncompensated care. Health Aff 16:167-
- 20. Kellerman AL, Ilackman BB. Emergency department patient 'dumping': an analysis of interhospital transfers to the Regional Medical Center at Memphis, Tennessee. Am J Public Health 78 1287-1292, 1988
- 21. Schlesinger M, Gray B, Bradley E: Charity and community: the role of nonprofit ownership in a managed care system. J Health Polit Policy Law 21:697-751, 1996
 - 22. Gray B, Rowe C: Safety-net health plans: a status report. Health Aff 19:185-193, 2000.
 23. Andrulis DP: The public sector in health care: evolution or dissolution? Health Aff 16:131-

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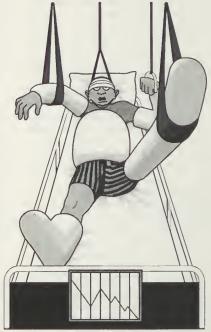
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Original Contribution

New Latino Immigration to Tennessee: Practicing Culturally Sensitive Health Care

Marcela Mendoza, PhD; Mario C. Petersen, MD, MS

Introduction: Latinos in a Multiethnic Mid-South

The Mid-South, a region that until recently has been characterized by its biracial composition, is becoming increasingly multiethnic and multilingual. Immigrant and refugee families from several Asian countries, from Central and South America, and from the Middle East, Africa, and Eastern Europe, are gradually modifying the cultural spectrum of the region. Since inattention to cultural differences between the mainstream society and ethnic minorities can have negative effects on the health outcome of minorities, health care providers need to develop new culturally appropriate forms to care for a population that is becoming increasingly multiethnic.¹

In this paper, we analyze issues of cultural competence affecting the provision of health services to the Hispanic/Latino population in the Mid-South. We also describe cultural characteristics common to families of Latino heritage, including their health beliefs. We use the terms "Hispanic" and "Latino" interchangeably.

In Tennessee, Latino immigration remains undercounted due in part to the temporary contracts of many rural workers and to the undocumented status of other recent immigrants. By 1990, the largest number of Hispanics in the state was concentrated in Middle Tennessee. One in three Latinos lived in Metropolitan Nashville/Davidson County, in the counties bordering this area, or in Montgomery County. However, other areas in Tennessee have recently reported a significant increase in Latino population. At the beginning of the decade, almost seven of ten Hispanics were under the age of 35

compared to one of two non-Hispanics. Four of ten men were between 20 to 40 years old, and 109 Hispanic males were counted for every 100 Hispanic females. Between 1990 and 1997, according to estimations by the U.S. Bureau of Census, the Latino population of Tennessee increased at a 72.9% growth rate.²

The 1990 U.S. Census recorded about 4,500 Hispanics mostly Cubans, Puerto Ricans, and Mexican-Americans in the Memphis Metropolitan Area.³ Recent estimations increased the number of Latinos in the Memphis area up to 56,000 or more individuals.⁴ Data on local Hispanics' birth and birth to Mexican immigrant mothers from 1993 to 1997 analyzed by the Memphis and Shelby County Health Department⁵ also indicate a dramatic increase in the Latino population. Compared to 1993 records, resident Latino birth increased about 153% in 1997. Birth to mothers who listed their own place of birth as Mexico increased approximately 248% in 1997. The latest estimation by the local Immigration and Naturalization Service office reports 70,000 Hispanics in Memphis and Shelby County.

Informal surveys conducted by community leaders show that Latinos of Memphis and Shelby County are a heterogeneous population that includes Mexican-Americans, Puerto Ricans, Cubans, and persons from Central and South America and the Caribbean. Individuals who identify themselves as Latinos speak Spanish, Portuguese, English, and other indigenous languages. They represent different races, including persons of Native American, European, Afro-Brazilian, and Afro-Caribbean descent. Each of these groups has its own historic background, but they share many cultural traditions and beliefs that constitute the core of Latino identity in the United States.

Latinos in Memphis and through the Mid-South underutilize health care resources because of both real and perceived barriers. Limited command of English language, lack of knowledge about how the health care system works, and undocumented status are real barriers. Before an outpatient clinic is even reached, physical access to services may involve important logistic obstacles to patients. Also appointment procedures, difficult public transportation connections,

Reprint requests to UT College of Medicine, 711 Jefferson Ave., Memphis, TN 38105 (Dr. Petersen).

From the Department of Anthropology (Dr. Mendoza), and the Department of Pediatrics (Dr. Petersen), University of Tennessee at Memphis.

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formidable appearing buildings and directional signs written in a language that they do no understand could become overwhelming difficulties for recent immigrants. Other perceived barriers are a result of providers' cultural insensitivity.

In a meta-analysis study, Flores and Vega⁷ reviewed all the publications addressing access barriers to health care for children of Latino origin. As expected, they identified some barriers that are related to the employment conditions of Latinos and to other economic factors. However, equally relevant to health care professional are the number of barriers that depend on the health care practitioners and not on the patients (Table 1).

Learning About Cultural Differences

To understand the cultural expectations and past health care experiences of a patient, practitioners need to learn how to screen the cultural differences and similarities that exist between their patients and patients' families, and themselves. For example, health care practitioners need to know whether

TABLE 1 SUMMARY OF ACCESS BARRIERS TO HEALTH CARE FOR LATINOS			
Barrier	Supportive Evidence		
Lack of health insurance	**		
Poverty	**		
Parent educational attainment	**		
Parent belief	t		
Use of home remedies	t		
Source of parent advice on child illness	t		
Folk medicine practices	Е		
Immigration status	E		
Duration of residence in the United States	0		
Family size	Е		
Provider practices and behavior			
Reduced screening	†		
Missed vaccination opportunity	†		
Not receiving prescriptions	**		
Suboptimal management plan	†		
Inadequate communication/patient	**		
Negative attitudes of staff	†		
No regular source of care	**		
Excessive waiting times	+		
Transportation	†		
Cultural differences	†		
Language problems	Ť		

^{**} Evidence is strong, supported by multiple studies, usually with relevant control groups.

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Adapted from Flores and Vega.7

patients have arrived in this country recently, because there is a high association between the amount of time spent in the host country and the immigrant's adaptation to the lifestyle of mainstream society.⁸

In general, first-generation Latinos consider physicians to be authorities at the level of priests or ministers. Latinos expect medical doctors to be friendly and personable, with good verbal communication skills. Physicians are expected to shake hands, smile, and maintain a friendly politeness. Failure to shake hands might give an impression of coldness and obstruct future cooperation. Among Latinos, it would be appropriate that a clinician embrace a patient. Chairs placed close together would reduce a sense of distance and alienation.

Similarly, patients avoid open disagreement with the physician, and pretend to accept recommendations to maintain an environment of politeness. However, providers should understand that Latino patients are not always autonomous in making decisions about health care. They usually consult their families before making an important decision. Physicians need to create opportunities for family input.

Table 2 points out cultural considerations affecting the provision of health care among families with different ethnic backgrounds. In particular, questions about a patient's ethnicity, traditions, and religion are useful to interpret health care perceptions. For example, traditional knowledge about health, illness, and folk treatments are often passed from one generation to the next among Latino families.

Nevertheless, cultural practices alone are not the only determinants of individuals' beliefs and attitudes toward health care. Socioeconomic status, educational level, degree of identification with ethnic roots, language spoken, the length of time spent in the United States, and the reasons for emigrating are all important variables.

Latino Families

Latino families tend to be more hierarchical and rooted in past traditions than their Anglo-American counterparts. The traditional Latino family has been described as characterized by male predominance and specific gender role definition. The man is viewed as protector and head of the family, while women are primary caretakers, although this model is in transition.

Because migration involves stressful experiences (including culture shock and acculturative pressures) Latino immigrant families turn to co-nationals for support, and they also gravitate to barrio churches with Latino congregations and ministers or priests. Local groups and individuals who provide emotional and material support to recently immigrated Latino families could become unexpected allies to health care practitioners serving immigrant families.¹¹

In general, religiosity, respect, dignity, a hard work ethic, and maintenance of language and cultural identity are values shared by most Latino families. Many second and third-gen-

[†] Evidence present but supported by small number of studies, with or without control groups. E. Evidence is equivocal

⁰ No evidence

eration Latino families in the United States still eat home-cooked dinners together, attend church on Sundays, speak in Spanish at home, and routinely organize family gatherings, as mechanisms to preserve cultural identity.¹²

In describing traditional values of Latino families, social class variations that predominate in the countries of origin are usually misinterpreted as culture variations. Class structure is more marked and implies more cultural features in Latin America than it is in the United States. For example, Latino individuals from urban areas, who were socialized in a middle-class milieu, usually take more assertive stances in their interactions with health care providers than individuals from a low socioeconomic status, who have had fewer opportunities to experience self-empowerment and assertiveness in their own social environment.

Cultural values common to most Latinos are a sense of *familismo* and family loyalty, a preference for *personalism* and closeness in interpersonal relations, *simpatia*, a particular sensibility in nonverbal communications, acceptance, or *fatalismo*, and dignity and modesty for women.

Familismo and Loyalty

Latinos adhere to a collective orientation that supports families and fosters the formation of communities. The extended families that result from these configurations can offer valuable support in health care related issues. Although most Latino families in the United States live in nuclear households, early and close family ties are still at the core of the Latino experience in this country. Most Latino families remain two-parent units through their lives. Divorce rates among Latinos is lower than among Anglo-Americans. Additionally, the godparent and *compadre* systems support in-

TABLE 2 CULTURAL CONSIDERATIONS AFFECTING HEALTH CARE			
General	Expectations of a person's behavior and development		
	Family composition and role and responsibilities of members		
	Social roles and activities at different stages of life		
	Effects of poverty, discrimination, and disempowerment		
Health and Illness	Concepts and definitions of health and health maintenance		
	Perceptions of the body and its functions		
	Concepts about illness		
	Belief in folk remedies		
Clinical	Prevalence of disease and illness among different ethnicities		
	Differential nutrition and lifestyle		
	Language barriers and different communicative styles		
	Compliance issues, such as lifestyle changes, diet, and medication		

Adapted from Patcher. 19

dividuals through crucial life experiences. Latino collective and cooperative styles versus mainstream individualistic and competitive mode result in the socialization of children who may have different goals than those children raised in the mainstream of American culture.

Personalismo and Close Interpersonal Relationships

Latinos tend to trust individuals rather than institutions. Researchers found that Mexican-American children have a cognitive style more field-sensitive than Anglo-American children do. This field dependence implies a high sensitivity to nonverbal indicators of feelings, and it is operationalized in the Latino cultural concept of personalismo. The concept refers to a preference for personal and individualized attention, and high responsiveness in interpersonal interactions. Latino children also require less space and more physical contact. Latino patients value interpersonal interaction with health care providers more than a task-oriented efficient style. Practitioners who want to establish a positive relationship with Latino patients need to incorporate the cultural practice of platicar (informal conversation/chatting), which involves friendly conversation that sets the appropriate climate or ambiente in which the consultation will take place. A practitioner who can incorporate such a communicative style would achieve greater family cooperation and trust.

Simpatía

Latinos place great value on being affectionate and sympathetic in social relationships, and in avoiding hostile confrontations. Such cultural orientation may lead them to perceive health providers' neutral behaviors as negative, while providers' positive attitudes may be perceived as neutral by Latino patients. Implicit misperceptions depend upon the degree of friendliness and interest shown by practitioners who are treating Latino patients.

Sensibility in Nonverbal Communication

Latinos are sensitive to nonverbal communication, and may pick up nonverbal cues as a form to assess their interactions with others, particularly in relation to an authority figure or in relation to another person perceived as of unequal status. Practitioners' body language can convey to Latino patients and their families a caring and respectful attitude, or the image of someone who disrespects their culture. Facial expressions and eye contact are also subject to various crosscultural interpretations. Among Anglo-Americans, for example, direct eye contact in interpersonal interactions communicates sincerity and trustworthiness. However, prolonged eye contact may be interpreted as disrespectful by Latino patients.

Latinos are comfortable with closer conversational distances than Anglo-Americans, who prefer to leave more space

between individuals when they are engaged in a conversation. The appropriate social distance can be easily observed. For example, individuals would back up when another person is perceived as being too close. When individuals move toward another person, they attempt to get close and reduce social distance. The amount and type of physical contact that is appropriate is different for Latinos and Anglo-Americans. Latinos would tolerate, and even prefer, physical contact. Because of cultural differences, postures and movements that are taken for granted by Anglo-American health providers may have different meanings for Latino patients, and common gestures may contribute to misunderstandings instead of fostering effective communication.

Fatalismo

Many Latinos believe that illness can be attributed both to chance and to God's plan to test the faith of individuals through suffering and punishment. This attitude of acceptance has been called *fatalismo* (fatalism). For example, mothers of children with birth defects often refer to the situation as a "cross to bear."

Latino Folk Health Beliefs

The most common criteria of good health among Latinos include a strong body, the ability to maintain a high level of

TABLE 3 ASKING QUESTIONS ABOUT HEALTH BELIEFS AND FOLK REMEDIES AND ILLNESS			
Health Beliefs	What would you call this problem?		
	What do you think is happening inside your body?		
	What are the symptoms that make you think that you are (or your child is) affected by this illness?		
	What problem does this illness cause to you (or your child)?		
	What do you think has caused it?		
	What will happen if this problem is not treated?		
Folk Remedies	People told me that there are ways that doctors don't know about of treating Have you heard of any of those treatments or remedies?		
	What are they?		
	Are they effective?		
	Have you ever tried it for yourself (or for your child)?		
	Are you using it now?		
Folk Iliness	What do you think is wrong with your health (or that of your child)?		
	Some people told me about an illness called that doctors aren't aware of. Have you ever heard of it?		
	How could you describe it?		
	Have you ever seen someone with it?		
	Do you think that you (or your child) may have it now?		

Adapted from Patcher.19

normal physical activity, and the absence of persistent pain and discomfort. ¹³ Latinos also believe in the powers of good and evil, reinforced by religious traditions. Individuals that consider themselves sick would use both folk and Western medicine. Depending upon their perception of the symptoms, Latinos would choose one or the other (for example, Latinos are more likely to seek medical help for anxiety than for depression). Questions in Table 3 could help to elicit positive answers to clinical histories of health beliefs among Latino patients.

It is important to remember that health beliefs and practices would vary considerably among countries, and even among regions of the same country. The folk diseases and remedies described in this paper should be taken as generalizations that may not apply to specific patients and families.

Latinos who actually seek help from a physician expect that the professional would "know" what is wrong, would be able to name the disease, and indicate a treatment to cure it. Latinos want the physician to tell them what to do rather than to ask questions. A physician's request for second opinions may decrease a patient's trust. Also, the ethical practice of giving lists of alternative treatments could be considered a weakness by Latino patients ("if you are a doctor, why don't you tell me what to do"). To a worried family who seeks help from a responsive and friendly medical staff, the process of seeking help in itself turns out to be therapeutic. However, families would also turn to herbal remedies, teas, and other home treatments, as well as religious rituals.¹⁴

Health care providers are advised to respect these customs, while at the same time ensuring that interventions by a folk healer or *curandero* would not harm the patient. *Curandero* means in Spanish "the one who cures." Folk healers use a combination of individualized attention, rituals, herbs, oil massages, amulets, and prayer. Folk illnesses such as *mal de ojo* or *susto* require folk treatments.

As pointed out by Risser and Mazur, 15 European colonists brought to America in the 17th century some of the herbs that Latinos use today. Many other herbs are autochthonous from this continent. Some of the herbal treatments can be potentially dangerous if used in excess. For example, azogue contains mercury and can be toxic in high doses. Wormwood can be psychoactive in high doses, producing cramps, convulsions, and delirium. Anis estrella can produce lethargy and metabolic acidosis. Alcanfor can also be toxic. However, it is important to put these risks in perspective. Almost all of the drugs used by the western medicine are toxic, too, if used in excess or even in therapeutic doses. In 1997, for example, 126 subjects died from acetaminophen (Tylenol) intoxication in the United States. Acetaminophen intoxication is the most common cause of liver failure. Tables 4 and 5 enumerate herbal and home remedies commonly used by Latino families.

Mal de Ojo

Mal de ojo is a version of the evil eye belief that is present (with variations) in many ethnic groups. Among Latinos, this folk illness is attributed to malevolence and jealousy. For example, an adult who secretly covets an infant or is jealous of parents who have such a beautiful child may put a curse on the child. The illness is treated by a curandero or a practitioner of santeria (a spiritualist tradition of African roots), who performs a ritual cleansing of the family's home and prays for the child. After such a ritual, the patient receives a bracelet for future protection against mal de ojo.

Among Latinos, there is a perceived conceptual difference between *curanderismo* (the practice of folk healing), santería, espiritismo, and brujería or witchcraft. Santería invokes the intervention of saints to heal illnesses and espiritismo is the belief that spirits surround the visible world and eventually attack human beings. Some spirits are incarnated as human beings. Disembodied (non-incarnated) spirits communicate with embodied spirits through mediums or people who have developed facultades espirituales (spiritual competence), and can intervene in the affairs of other human beings. Witchcraft usually calls upon evil spirits to cast negative spells on people.

TABLE 4 HERBAL REMEDIES USED BY LATINO FAMILIES				
Herb (English/Spanish Name)	Medicinal Use (European)	Home Use By Latinos		
Chamomile/Manzanilla	Antispasmodic, anxiolytic, sedative	Colic		
Cinnamon /Canella	URTI*, nausea, vomiting, diarrhea	Antispasmodic, fever, URTI, vomiting		
Clove oil/Clavo	Dental analgesic	Teething/toothache		
Cumin/Comino	Antiflatulent, diarrhea, dyspepsia, stimulant	Diarrhea		
Eucalyptus/Eucalipto	Asthma, URTI, urinary tract infection	Asthma, URTI		
Garlic/Ajo	Ear infection, toothache, URTI	Ear infection		
Ginger/Jengibre	Antiflatulent, colic, dyspepsia, URTI	Vomiting		
Lemon/Limón	URTI	Asthma, fever, URTI		
Onion/Cebolla	Ear infection, URTI	Teething, URTI		
Oregano/Orégano	Antiflatulent, colic, URTI, antispasmodic, expectorant, indigestion, anti-inflammatory	Asthma, colic, URT1		
Pomegranate/Granada	Diarrhea, expel worms	Teething		
Spearmint/Yerba buena	Antiflatulent, indigestion, antispasmodic	Colic, diarrhea, URTI		
Star anise/Anis estrella	Antiflatulent, URTI, expectorant	Colic		
Wormwood/Estafiate	Antispasmodic, stimulant, expel worms	Diarrhea		

^{*} URTI indicates upper respiratory tract infection Adapted from Risser and Mazur. 15

Empacho

To some Latino parents, symptoms such as nausea, low-grade fever, mild emesis, diarrhea, and decreased appetite may suggest *empacho*, a folk illness. It is a gastrointestinal illness thought to be caused by eating spoiled food, too much food, a wrong combination of food, or even swallowing too much saliva during teething. Parents who believe in *empacho* say that symptoms occur when the food becomes stuck to the walls of the stomach and intestines. Folk treatments for *empacho* include change in diet, occasional use of mild purgatives or laxatives (such as milk of magnesia or bismuth), massage, and seeking help from a folk healer (who performs the massage and recommends dietary changes).

Susto

Susto or fright is a folk illness that results from an emotionally traumatic experience. Witnessing an accident, or being scared by something, can cause susto. Symptoms of susto include restlessness during sleep, loss of appetite, loss of interest in personal hygiene, loss of strength, weight loss, and introversion.

Mal Puesto

Mal puesto (evil put to use) is a folk illness thought to be willfully put on someone by a *curandero* or a *brujo* (sorcerer/witch). The curse may be received with food, or be

TABLE 5 HOME REMEDIES USED BY LATINO FAMILIES FOR THE TREATMENT OF ASTHMA			
Home Remedy	% of 118 Ever Tried		
Praying to God	73		
Vicks VapoRub or alcanfor	74		
Vaporizer	65		
Massage	57		
Siete Jarabes (Puerto Rican Seven Syrups)	25		
Cod liver oil	15		
Azabache (black stone to counter-act evil eye)	15		
Aloe vera juice	15		
Praying to the saints	12		
Agua maravilla (mixture of substances)	11		
Té de manzanilla (chamomile tea)	9		
Prayer candles	8		
Garlic	6		
Té de eucalipto (eucalyptus tea)	6		
Jarabe maguey (Agave sp. syrup)	2		
Azogue (elemental mercury used in espiritismo)	2		
Praying to the Orishas (African deities, in santeria)	2		

Adapted from Patcher, Cloutier, and Berstein.²⁰

performed on one's photograph. It is often interpreted as being motivated by jealousy or desire of vengeance. For example, when a child is born with a malformation or a disability, it may be interpreted as having been caused by someone in the family who is at odds with the child's parents.

Caída de la Mollera

Caida de la mollera (fallen fontanel) is believed to be caused by dropping or bouncing a baby too hard or by removing the nipple too roughly from a baby's mouth. It reportedly results in a downward projection of the palate and obstruction of the eating process. Symptoms include failure to suckle, sunken eyes, vomiting, diarrhea, excessive crying, and sometimes fever. Researchers argued that it is more difficult to handle a perceived fallen fontanel than other folk beliefs. When an infant with such a folk diagnosis is finally brought into medical practice, clinical dehydration may already be advanced.

Mal Aire

Mal aire (bad air) is a folk illness that supposedly results from exposure to cold, air, wind, water, and other elements. For example, individuals who have just awakened, or have taken a warm bath, are often reluctant to go from a warm room directly into the cold. Symptoms such as pain, cramps, facial twitching, and paralysis are commonly attributed to mal aire. To assuage a Latino mother's fear of mal aire, a physician might keep an infant or child partially covered during a physical examination.

Conclusion

The Latino/Hispanic population of the Mid-South is growing at an accelerated pace and health care providers who serve this population need to become culturally sensitive in their relationships with Latino patients and families. We have offered some suggestions that could be useful in providing culturally sensitive interventions.

Such culturally appropriate health interventions are desperately needed among Latino/Hispanic families who have recently immigrated to the United States, partly because Hispanics are less likely than other ethnic minorities recently

immigrated to seek medical care and to have access to health care services. Culturally appropriate health interventions are also needed because the initial advantages of many measures of personal health and well-being that characterize recent immigrants of the lost over time and across generations, as immigrants become part of American society. For example, first generation immigrant adolescents are less likely to engage in delinquent or violent behavior, use cigarettes, or engage in sexual intercourse at an early age. Immigrant adolescents who have lived in the United States for longer periods tend to be less healthy and to engage more often in high-risk behavior. By the third generation, rates of behavior among Hispanic adolescents come to exceed those of Anglo-American adolescents. IS

References

- Minority Health Statistics Grant Program: Center for Disease Control and Prevention, 1998.
 Narrowing the Gap: Minority Health in Tennessee. Nashville, Tennessee Department of Health, Office of Minority Health, 1997.
- 3. Greenbaum S: Urban immigrants in the south: recent data and a historical case study, in Hill CE, Beaver PD (eds): Cultural Diversity in the South. Anthropological Contributions to a Region in Transition. Athens, GA, University of Georgia Press, 1998.
- 4. Burrell LS, et al: Preliminary Estimates and Projections of the Hispanic Population for the Memphis Metropolitan Area 1996-2000. Memphis, University of Memphis, Regional and Economic Center, 1997.
 5. Vital Statistics. Memphis, TN: Memphis and Shelby County Health Department, Vital Records
- Vital Statistics. Memphis, 1 N: Memphis and Shelby County Health Department, Vital Record Office, 1997.
- Minkler DH: The role of a community-based satellite clinic in the perinatal care of non-English speaking immigrants. West J Med 139:905-909, 1998.
- Flores G, Vega LR: Barriers to health care access for Latino children: A Review. Fam Med 30:196-205, 1998.
- 8. Berman BD: Putting research into practice. Pediatr Basics 85:19-24, 1998.
- Maduro R: Curanderismo and Latino views of disease and curing. West J Med 139:868-874,
 1983.
- Meyerson MD; Cultural considerations in the treatment of Latino craniofacial malformations. Cleft Palate J 27:279-288, 1989.
 Mendora M, Martin C; A. Grassroots Approach to Excilinate the Cultural Expression of
- Mendoza M, Martin C: A Grassroots Approach to Facilitate the Cultural Expression of Recent Immigrants to the Memphis Metropolitan Area. Abstracts. Southern Anthropological Society Annual Meeting. Decatur, GA, February 26-28, 1999.
- Baker R, Mundos LD: Rural Mexican Americans, Another America. Logan, UT, Utah State University Press, 1995.
- Krajewski-Jaime ER: Folk-healing among Mexican-American families as a consideration in the delivery of child welfare and child care services. Child Welfare 70:157-167, 1991.
- 14. Patcher LM, et al: Home-based therapies for the common cold among European Americans and ethnic minority families. The interface between alternative/complementary and folk medicine. Arch Pediatr Adolesc Med 152:1083-1088, 1998.
- Risser AL, Manzur LJ: Use of folk remedies in a Hispanic population. Arch Pediatr Adolesc Med 149:978-981, 1995.
- Erikson PI: Latina Adolescent Childbearing in East Los Angeles. Austin, University of Texas Press, 1998.
 Harandez DI: From Conservation to Conservation: The Health and Wall-being of Children in
- 17. Hernandez DJ: From Generation to Generation: The Health and Well-being of Children in Immigrant Families. National Academy of Science, National Research Council and Institute of Medicine 1998.
- 18. The State of Hispanic Girls. Washington, DC, National Coalition of Hispanic Health and Human Services Organizations (COSSMHO), 1999.
- Patcher LM: Practicing culturally sensitive pediatrics. Contemp Pediatr 14:139-153, 1997.
 Patcher LM, Cloutier MM, Bernstein BA: Ethnomedical (Folk) remedies for childhood asthma in a mainland Puerto Rican community. Arch Pediatr Adolesc Med 149:982-888, 1995.

For editorial comment see page 351

Department of Health Report

Newborn Screening for Congenital Adrenal Hyperplasia

H. Lee Fleshood, PhD, MPA

Introduction: Tennessee's Newborn Screening Program (NSP) began with screening all newborns for phenylketonuria (PKU) in 1968. Congenital hypothyroidism (CH) was added in 1980, hemoglobinopathies in 1988, and galactosemia in 1992. It is anticipated that the state laboratory will begin reporting results for congenital adrenal hyperplasia (CAH) in September 2000. Identifying, finding, and obtaining diagnosis and treatment for infants with disease from approximately 80,000 births requires a system of care. The system is set into action with each pregnancy. Obstetricians, pediatricians, general and specialty practice physicians, nurse midwives, hospital nursery and laboratory personnel, geneticists, endocrinologists, and state and local health department staff all play an important role in that system of care.

Tennessee law regarding newborn testing requires a Genetics Advisory Committee to advise and make recommendations to the Commissioner of Health. The directors of the five genetic centers and the four sickle cell centers are members of the GAC, along with two at-large members (currently an endocrinologist and a pediatrician who is also an attorney). The committee generally meets twice a year. Meetings are open to the public. Three regional endocrinologists are invited, along with representatives from two consumer groups. Most of the information presented here is a result of the work and input from the committee.

Addition of CAH: CAH is an inherited endocrine disorder caused primarily by a defect in the 21-alpha-hydroxy-lase enzyme. This enzyme defect occurs in 90% of all CAH cases and is identified by testing for the level of 17-alpha-hydroxy-progesterone (17-OHP) in dried blood spots. Affected female infants may be recognized more easily since they may have ambiguous genitalia. Affected male infants with CAH are often not identified until they have a salt-wasting crisis. Infants with untreated CAH can die within one to three weeks, or can experience inappropriate gender assignment and/or serious illness.

From the Tennessee Department of Health, Nashville. Dr. Fleshood is Director, Genetic & Newborn Screening Program at TDH. Data from other southeastern states testing for CAH indicate that we can expect the ratio of false to true positive to range from 70:1 up to 100:1. It is important that PCPs and the parents who are contacted about a presumptive positive CAH are aware that the number of false positives is very high.

Despite the rate of false positives, CAH testing fits the criteria for inclusion in the newborn screening panel because it is cost-effective, the disease is asymptomatic at birth, and if found, it responds well to treatment. The normal cutoff values for CAH are weight-dependent. It is crucial to include birth weights for newborns and current weights for repeat tests when submitting specimens for CAH testing. The laboratory will not know if 17-OHP is elevated unless the weight is known.

New Features of the Newborn Screening Program: Along with the introduction of screening for CAH, other changes are being made to the NSP to improve services. The primary care provider (PCP) will be responsible for seeing infants with positive CAH results. Local health department staff will be notified at the same time the PCP is contacted, and will assist in locating the infant, if necessary. Presumptive positive infants need to be evaluated on the same day and observed until electrolytes are known to be normal. If electrolytes are abnormal, the infant will require hospital admission and IV fluids. An algorithm for care will be provided with each abnormal screen. The PCP and a regional endocrinologist will be notified of abnormal results by phone and fax.

Brochure Revisions and a New Communication: We have revised our program brochures for parents to include the addition of CAH. The yellow brochure, "Your Baby and Newborn Screening" is a general information pamphlet that we request obstetricians, family practitioners, and hospitals to provide to pregnant women and parents with a newborn baby. State law requires all newborns to be screened before leaving the hospital. It is required that the green brochure "Your Baby Needs to be Rescreened for PKU, CAH, Galactosemia, and Hypothyroidism" be given to every parent, guardian, or custodian of an infant screened but discharged before the infant was 24 hours of age.

In addition to these revised brochures for families, another communication for providers is available: "Informa-

tion about the Metabolic Newborn Screening Program in Tennessee" It contains key excerpts from the law and rules and regulations, hospital responsibility, state responsibility, weekend and holiday situations, PCP responsibility, list of resources, and a table briefly describing the specific metabolic defect(s), clinical symptoms, screening method, normal values, goals of screening, and some pitfalls of screening. All providers will receive copies of the three publications when CAH screening begins. If you have any questions or concerns, call the State Laboratory at (615) 262-6352 or the Maternal and Child Health follow-up at (615) 262-6304.

Regional Endocrinologist Volunteers: There are only 10 to 12 practicing pediatric endocrinologists in Tennessee. Each time presumptive positive results for congenital hypothyroidism, and now CAH, are faxed to a PCP a list is included of the names, addresses, and phone numbers of all those known to be practicing endocrinologists in the state. Since 1997, via a letter of agreement, the health department has been working with four endocrinologist volunteers located in Chattanooga, Knoxville, Memphis, and Nashville. Depending on the address given on the specimen collection form, a copy of presumptive positive results is also sent to the appropriate regional endocrinologist, who has agreed to assist with follow-up.

We want the PCP to know that an endocrinologist is available to assist with follow-up if necessary. The endocrinologist volunteers have agreed to assist by checking with the PCP to be sure the child has been located and diagnosed, and is receiving necessary treatment. If the PCP is unable to locate the infant, we request that the endocrinologist notify our follow-up unit. If the PCP has not notified the state follow-up unit that the infant has not been located, the regional endocrinologist will alert the state follow-up unit. Adding CAH to the current panel of tests means that two of the five newborn screening tests will identify infants that may need the services of an endocrinologist. Availability and access to endocrinology specialty care could be a problem if this resource is not used with prudence.

Reporting Presumptive Positive Data by Phone and Fax vs. Phone and Certified Letter: This is a new feature of the NSP. Since most PCPs have fax machines, this allows hard copy information to be received at the same, or nearly the same, time that information is being communicated by phone. It is much better (as well as much faster) than certified mail because it allows the PCP staff to correct any mistakes in the translation of the oral information they receive.

SPRANS Grant and "Let's Do It Right the First Time" Training Module: Tennessee is one of eight states that have received a SPRANS (Special Projects of Regional and National Significance) grant. The grant is titled "Integrated Services for Children with Genetic Conditions." The purpose of the Tennessee grant is to follow all newborns with a confirmed diagnosis for three years. Prior to the grant, Tennes-

see (along with Georgia, Mississippi, and Louisiana) was working with Dr. James Eckman at Emory University to collect information on sickle cell patients for a retrospective evaluation of services provided. Dr. Eckman also received a SPRANS grant to continue his coordination efforts on sickle cell disease with the four states on a prospective basis. The retrospective sickle cell evaluation, among other things, has demonstrated the need for reducing the time between diagnosis and initiation of antibiotic administration (prophylactic penicillin). It is expected that the new prospective evaluation of services will document some things that our system of care is doing right and some things that need to be improved.

One positive change in our system has already come from the process of implementing the grant. Consumers are being included in all aspects of planning. The Boling Center for Developmental Disabilities at University of Tennessee Health Science Center in Memphis convened a group of parents with PKU children for input. Some parents expressed their concerns about the way they were notified that their baby had a presumptive positive screen. They reported that PCP office staff had notified them by saying, "Your baby has tested positive for mental retardation." This was terrifying to them and not true. We now fax information to the PCP with suggestions as to how the test results might be communicated.

Some of the grant funds are being used to produce a training module to reduce the number of unsatisfactory specimens. Although we have a goal to reduce the percentage of unsatisfactory specimens to less than 1%, the rate of unsatisfactory specimens submitted by most Tennessee hospitals remains excessively high at approximately 6% statewide. Each unsatisfactory specimen could potentially delay critical diagnosis and treatment by 9 to 18 days. The likelihood of a second unsatisfactory specimen in a non-hospital setting is three times higher once the infant leaves the hospital. This situation could further delay critical diagnosis and treatment by an additional 18 to 36 days. Unfortunately, we have parents who too often call us scared and frustrated because they have received the fourth or fifth letter requesting another repeat specimen.

A training module is being developed that can be used in hospitals and other settings to train existing and new personnel involved in newborn screening specimen collection on all three shifts. We are pleased to report that in 1999, two hospitals had less than 1% specimens unsatisfactory: University of Tennessee Medical Center, Knoxville submitted 3,185 specimens with only 23 unsatisfactory, and Northcrest Medical Center in Springfield submitted 539 specimens with only 3 unsatisfactory. Lowering the rate of unsatisfactory specimens to less than 1% statewide could reduce unnecessary time-consuming trips for over 5,000 families who must return for repeat testing. It would also reduce needless anxiety, worry, and fear.

Vanderbilt Morning Report

A Case of Pneumococcal Meningitis

Case Report

A 63-year-old white woman with a history of heavy ethanol use and adult-onset diabetes mellitus was admitted to the medical intensive care unit at Vanderbilt Hospital after being found unresponsive at home by family members. She had quit drinking three days earlier because she felt nauseated and short of breath. She had intermittent vomiting and diarrhea over the next two days. On the day of admission, the family found her in her bedroom unresponsive and with labored respirations. An ambulance was called, and the patient was intubated en route to Vanderbilt.

Examination showed a moderately obese woman with a temperature of 101.7°F rectally, pulse 100/min, and blood pressure of 100/70 mm Hg. She had no rash. The patient had no papilledema and her ocular examination was normal. Meningismus was present. Lung examination showed decreased breath sounds at the left base. The remainder of the physical examination, including the neurologic status, was normal except that she was responsive to only deep stimuli.

The patient's laboratory examination showed her to be hypoxic with a Po₂ of 120 mm Hg on mechanical ventilation with an F₁o₂ of 50%. Her serum electrolytes were normal except for a glucose of 240 mg/dl (normal 70 to 110). Her WBC count was 17,200/cu mm (normal 5,000 to 10,000) with 90% segmented neutrophils. Chest x-ray revealed a dense left lower lobe infiltrate. Gram stain of sputum showed sheets of gram-positive diplococci. A lumbar puncture performed immediately upon arrival at Vanderbilt showed cloudy white fluid with 3,236 WBC/cu mm, 98% of which were polymorphonuclear leukocytes. There were also 120 RBC/cu mm. The protein was 256 mg/dl (normal 15 to 45) and the glucose was 21 mg/dl (normal 45 to 65). CSF gram stain showed gram-positive diplococci.

Emergency treatment was begun with ceftriaxone 2 gm IV every 12 hours and vancomycin 1 gm every 12 hours. The following day, blood, CSF, and sputum cultures grew gram-positive cocci subsequently identified as Streptococcus pneumoniae. The organism was found to be highly sensitive to penicillin, with a minimal inhibitory concentration (MIC) <0.06 μ g/ml. Vancomycin was discontinued but ceftriaxone continued. The patient remained comatose and

developed grand mal seizures that were treated with phenytoin. CT examination of the head revealed extensive white matter abnormalities consistent with vasculitis secondary to CNS pneumococcal infection. She had no evidence of sinusitis. Rifampin (600 mg orally/day) and dexamethasone (20 mg IV every 12 hours) were added to her therapy. Despite this, the patient developed hypotension, renal failure, and profound hypoxia. She expired three days later of a cardiac arrest from which she could not be resuscitated.

Discussion

Streptococcus pneumoniae is the most common etiologic agent of bacterial meningitis. The pathogenesis of meningitis may be as a result of bacteremia, as was the case in this patient, or by direct extension from the sinuses or middle ear. Pneumococcal pneumonia is frequently associated with subsequent meningitis. The risk of pneumococcal disease is higher in elderly persons and those with a defective ability to mount an adequate antibody response. Defective antibody formation can be congenital (i.e., congenital agammaglobulinemia) or acquired (i.e., myeloma, leukemia). Other risk factors include asplenia, alcoholism, and diabetes mellitus.

Patients with pneumococcal meningitis are often severely ill. They are frequently lethargic and may be comatose, often with fever, chills, meningismus, and cranial nerve palsies. A suspicion of meningitis warrants an emergency lumbar puncture and rapid institution of antibiotics. Lumbar puncture in patients with pneumococcal meningitis typically reveals a purulent meningitis with a high leukocyte count, low glucose, and high protein. The organism may be frequently seen on gram-stain, and CSF cultures are often positive.

Treatment of meningitis due to *S. pneumoniae* has changed significantly over the past decade due to the emergence of strains resistant to penicillin. Currently, up to one-half of pneumococcal isolates from all clinical sources exhibit some level of resistance to penicillin. As a result, all isolates need to be tested for susceptibility to penicillin. Strains that are sensitive possess an MIC of $< 0.06 \,\mu g/ml$. Resistant strains can possess either intermediate or high level resistance. Organisms with intermediate sensitivity can be treated with high dosages of beta-lactam antibiotics while organisms with high level resistance require vancomycin. Because the degree of penicillin resistance is unknown at the time of diagnosis, appropriate initial therapy of meningitis suspected to be due to *S. pneumoniae* is high-dose cefotaxime (or ceftriaxone)

Prepared by Ian Crozier, MD, Hugh Morgan chief medical resident, and Jason D. Morrow, MD, Vanderbilt University Medical Center, Nashville.

and vancomycin. Some physicians also favor the addition of rifampin and dexamethasone in severely ill patients.2

Mortality associated with pneumococcal meningitis can be up to 35%. Complications are common, and include neurologic defects due to sequelae of infectious vasculitis. Loss of hearing, convulsions, hemiparesis, and cranial nerve defects may also occur.

References

- 1. Quagliarello VJ, Scheld WM: Treatment of bacterial meningitis. N Engl J Med 336:708-716,
- Mandell GL, Bennett JE, Dolin R (eds): Principles and Practice of Infectious Diseases, ed 5.

 Philadelphia, Churchill Livingstone, 2000, pp 2128-2144.

 3. Burman LA, Norrby R, Trollfors B: Invasive pneumococcal infections: incidence, predispos-
- ing factors, and prognosis. Rev Infect Dis 7:133-142, 1985.
- 4. Appelbaum PC: Antimicrobial resistance in Streptococcus pneumoniae: An overview. Clin Infect Dis 15:77-83, 1992.

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TMA Alliance Report

TMA Alliance Health Promotions

For the TMA Alliance, Health Promotions remains one of our most successful and most appealing areas of service as physicians' spouses. The 23 alliances across Tennessee have a wide variety of health concerns that are addressed through creative efforts of our members. We are grateful to the TMA for continued support of health project grants that allow TMAA to help fund these county programs.

There are two areas of emphasis for our focus this coming year. TMAA President Marcia Young is committed to working on anti-tobacco education programs for school age children. A number of our county alliances already have such programs. We anticipate utilizing available resources to collaborate with other health agencies in this effort.

SAVE (Stop America's Violence Everywhere) is the AMAA's ongoing anti-violence crusade. For SAVE Today 2000 (October 11) 50,000 SAVE Puzzles using the familiar "Hands are NOT for Hitting" theme will provide a unifying activity for county alliances throughout the nation. A grant from the AMA Foundation funded this project. Suitable for use in grades 3-5, the puzzle provides an expansion to the older graders of SAVE activities assigned for grades K-2.

Individual counties had to request the puzzles for local use by August 1, 2000. In Knoxville, for example, 7,500 puzzles have been requested for use with third graders in a nine-county region. This region is made up of mostly rural counties, several of which do not have organized alliances. This is related to the recent, "Nine Counties, One Vision," community-planning process organized in that region.

It is a privilege to work with the outstanding county alliances as we seek to address the health concerns of our state.

Jo Terry TMAA Health Promotion Chair

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Bradley County Medical Society Francis P. Burns, DO, Cleveland

Consolidated Medical Assembly of West Tennessee Michael G. Lundy, MD, Jackson

Cumberland County Medical Society Renata A. Drabik-Nowak, MD, Crossville

Hardin County Medical Society Tracie S. Garmany, MD, Savannah

Hawkins County Medical Society
M. Blaine Jones III, MD, Rogersville

Knoxville Academy of Medicine Jean A. Byarlay, MD, Knoxville Steven K. Madigan, MD, Knoxville

Lakeway Medical Society

Donald C. Thompson, MD, Morristown

Nashville Academy of Medicine
Kimberly T. Crawford, MD, Hermitage

Sullivan County Medical Society
Mohammed N. Imam, MD, Kingsport

Tipton County Medical Society Alvin J. Miller Jr, MD, Covington

Washington-Unicoi-Johnson County Medical Association Jose L. Mejia, MD, Johnson City

Williamson County Medical Society Julie M. Pena, MD, Franklin

Wilson County Medical Society Brian W. Hughey, MD, Lebanon Charles R. Kaelin, MD, Lebanon

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during July, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Kelly L. Baker, MD, Jonesborough Ralph M. Bard, MD, Tullahoma Ralph I. Barr, MD, Columbia Michael W. Bible, MD, Bristol Maury W. Bronstein, MD, Memphis Anh H. Dao, MD, Nashville Larry G. Graham, MD, Johnson City Radwan F. Haykal, MD, Memphis Karl F. Hubner, MD, Knoxville Sharon A. Jackson, MD, Kingsport Scott H. Keith, MD, Cookeville Howard S. Kirshner, MD, Nashville Richard G. Lane, MD, Franklin James J. O'Connell III, MD, Chattanooga Samuel A. Smith, MD, Brentwood Harrison D. Turner, MD, Kingsport Lawrence K. Wolfe, MD, Nashville

In Memoriam

David A. Corey, MD, age 73. Died August 2, 2000. Graduate of Ohio State University College of Medicine. Member of Knoxville Academy of Medicine.

James A. Robinson, MD, age 76. Died August 13, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Charles Clarke Smeltzer Sr, MD, age 87. Died August 6, 2000. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

TMA Board of Trustees Meeting Minutes

July 14-16, 2000

The following is a summary of actions taken by the Board of Trustees of the Tennessee Medical Association at its regular third quarter meeting held July 14-16, 2000, in Braselton, Georgia.

THE BOARD:

Adopted the minutes of the TMA Board of Trustees meeting held April 27 and 29, 2000.

Approved the minutes and confirmed the actions of the Executive Committee Meeting held June 7, 2000.

THE EXECUTIVE COMMITTEE, at its June 7, 2000 meeting received reports from the following: Committee on Legislation, Committee on Membership, TMA Futures Task Force, and an update from Dr. Fleming on his, Dr. Gerkin, and Mr. Alexander's recent visit with HCFA to discuss TennCare II.

THE BOARD OF TRUSTEES, at its July 15, 2000 meeting, took the following actions:

Futures Task Force. Agreed, in concept, to adopt the following recommendations submitted by the Futures Task Force: Phase 1—(a) Redesign the mode of communications with the membership making better use of current technologies; (b) Reengineer the leadership structure of the Association to be more reflective of and reactive to the membership, (c) Prioritize initiatives in all areas of operations based on broad-based membership input, and (d) Create a new Association image based on the premise what is good for our membership is good for the health of Tennesseans. Phase 2—(a) Provide more and varied educational forums for members on a wider range of topics based on the needs of the membership, (b) Seek more non-dues revenue-generated ventures capitalizing on the expertise of the membership and strengthen intra-organizational relations. Further agreed that the Executive Committee of the Board, along with Drs. David Gerkin, Knoxville; Jeffrey Gleason, Columbia; and Mack Land, Memphis, would serve as a subcommittee of the Task Force and present a progress report at the next quarterly meeting.

Annual Meeting Task Force. Received a report and recommendations from the Annual Meeting Task Force following their review of resolutions deferred to the Board for action concerning the TMA Annual Meeting:

The Board adopted the following recommendations: (1) Resolution No. 13-00 "Joint Meeting Between the TMA and Medical Specialty Societies"—agreed that statewide medical specialty societies be reminded that participation in the TMA Annual Meeting is encouraged and welcomed. (2) Resolution No. 21-00 "Annual Meeting Venue"—agreed that beginning in 2003 and thereafter, the Annual Meeting of the Tennessee Medical Association be held in Middle Tennessee with the preferred time to include late March through early May. (3) Resolution No. 22-00 "Annual Meeting Timetable"—agreed that the current format of Thurs-

day afternoon through Saturday noon be the timeframe for the TMA Annual Meeting. (4) Resolution No. 28-00 "Coordination of the Tennessee Medical Association Annual Meeting with the Tennessee Medical Association Alliance Annual Meeting"—agreed that the TMA continue to coordinate meetings with the TMA Alliance with the mutual goal of having both organizations hold annual meetings at the same time and place whenever possible.

Tennessee Medicine Task Force. Adopted the following recommendations: (1) Produce content for a Web-based Tennessee Medicine version as well as a monthly publication: (2) Establish Tennessee Medicine as the sole printed periodical of the Association; (3) Reduce the production/distribution time of the printed version of Tennessee Medicine to allow for a more timely publishing schedule to accommodate more news content; (4) Cut production costs further by reducing the number of mailed magazines; (5) Increase revenues; (6) Establish a planned annual budget based on a dues subsidy, CARE money, advertising, seminars' net profits, and e-commerce revenue. (7) Create an active editorial board who would review article submissions, direct content, and oversee budget; (8) Reorganize content to better serve readers' interest; (9) Develop a restructuring timeline to phase in changes over an 18-month period beginning in August, 2000; and (10) Base proposed and future changes on valid research.

Finance Committee Report. Agreed to contribute \$2,500 to the L. Hadley Williams Jr., Scholarship Fund for the year 2000. Agreed to contribute \$5,000 to the Tennessee Medical Education Fund, Inc. for the year 2000.

Quarterly Reports. Received quarterly reports from the following: State Volunteer Mutual Insurance Company, Inc. (SVMIC); Tennessee Medical Foundation, TMA Physician Services, Inc., Tennessee Medical Education Fund, Inc., Committee on Legislation, and Committee on Rural Physicians.

SVMIC. Agreed to continue the royalty agreement with SVMIC whereby SVMIC would be the preferred malpractice carrier for physicians in Tennessee.

IMPACT Board Member Recommendation. Submitted the name of Dr. James M. West, Memphis, for consideration of appointment to the IMPACT Board of Directors to fill the unexpired term of resigning member Dr. Gail Woodson, District 9.

Discount Membership Campaign. Approved a membership campaign that would allow TMA and the Memphis & Shelby County Medical Society to recruit first-time members at a flat rate of \$495.

Perinatal Advisory Committee Appointment. Agreed to submit the following names for consideration of appointment to the State of Tennessee Perinatal Advisory Committee: Drs. John W. Chambers, Cleveland (for reappointment), Lenita H. Thilbault, Kingsport, and Cornelia R. (Connie) Graves, Nashville.

Format for Prescribing Drugs. Directed staff to include an article in "The Chart" reminding physicians of the proper format for prescribing drugs and to list contact information for physicians with questions.

Financial Report. Accepted the second quarter financial statement from Dr. Subhi D. Ali, secretary/treasurer of the Association.

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

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Nov 29-Dec 1 Prescribing Controlled Drugs

Dec 1 Improved Treatment of Common Neurologic Conditions

Dec 1-2 26th Annual High-Risk Obstetrics Seminar

Dec 10-14 American College of Neuropsychopharmacology, 39th

Annual Meeting-San Juan, Puerto Rico

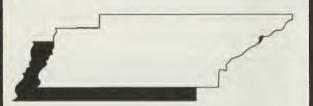
December Maintaining Proper Boundaries

Feb 2-10 23rd Annual Sisson International Head and Neck Work-

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University of Tennessee

Continuing Education Schedule

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Knoxville

Nov 8 5th Annual Pediatric Trauma & Emergency Medicine

Nov 14-16 Advanced Cardiac Life Support

Nov 29-30 Pediatric Life Support

Chattanooga

Nov 9, Nov 30, Dec 14

Medical Knowledge Self-Assessment Program (MKSAAP) Review: Fall-Winter 2000-2001 (Part A)

Nov 17-18 3rd Annual President's Forum: Complementary Alternative Medicine

Nov 30-Dec 17th Annual Internal Medicine Update

Dec 2 10th Care of the Aging Patient Symposium

Feb 8-13 International 14th Annual Clinical Medicine Update—Maui, Hawaii

Feb 11-15 International 2nd Annual Emergency Medicine Symposium—Maui, Hawaii

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.



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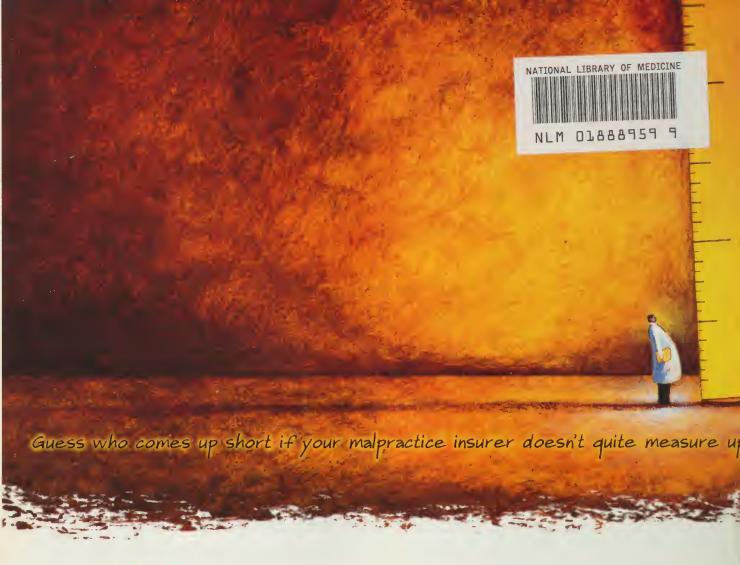
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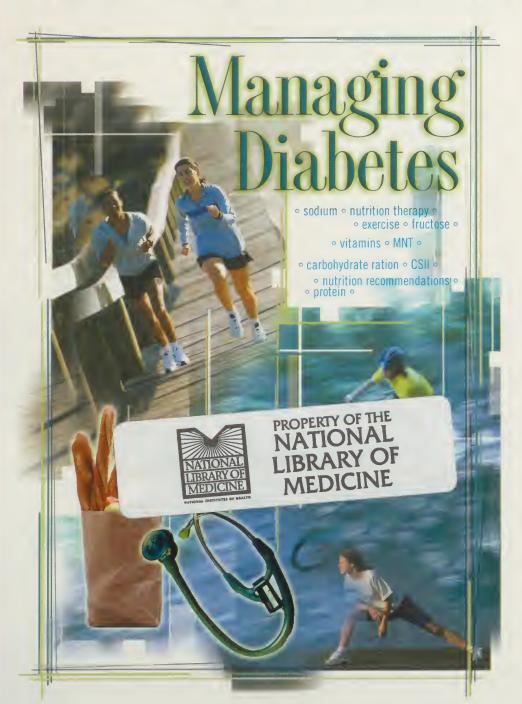




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nnessee Medicine

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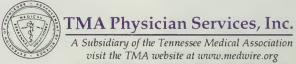
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Editor
John B. Thomison, MD
Assistant Editor

Robert W. Ikard, MD Managing Editor

Jean Wishnick King Business Manager

Donald H. Alexander Sr. V.P.—Communications

Russ Miller

Advertising Representative
Jean Wishnick King

Jean Wishnick King Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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President's Comments



Barrett F. Rosen, MD

Coordination

Even if diabetes is not a part of one's practice (which can't include very many of us), a cursory glance at recent covers of publications such as *Time* and *Newsweek* will show how there has been a tremendous increase in the incidence in this disease all across this country. This increase cuts across all ethnic, race, sex, and age lines to create almost an epidemic. To fail to address this issue would make us "ostriches" with our heads in the sand. To this end this issue of *Tennessee Medicine* is dedicated to diabetes and its complications. On just a public health basis we all need to look at this carefully.

While we spend a great amount of time on political issues, I believe that the *most* important function of the Tennessee Medical Association is to serve as a resource for our members to supply information on all topics, including political, clinical, and other matters. We certainly welcome every member's input as to how we can best accomplish this mission. Because there are so many "enemies" firing at us, it is difficult at times to remember where our focus should be!

The need for all Tennessee physicians to be informed and involved has never been greater. Almost daily we must respond to some group or organization that has "an issue" with us. The frustration comes when we realize that these are generally "single issue" groups with only one agenda item to focus on. This means they can mobilize members and money to focus simply on this one issue, while we must spread our resources over numerous items at once. If we are to be successful, those members most affected by each issue must coordinate with our lobbyists to have an effective and consistent front. Unfortunately, there have been times in the past when such coordination did not exist. I am happy to report that we have formed a Council of Medical Specialties to try to correct this, and there does seem to be much more interplay on such issues. I am certain that some of our "wins" in the last legislature session were the direct result of this system. I hope that when the 2001 session ends, we can report even greater successes.

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Editorials



John B. Thomison, MD

Compliance

As I shuffle through the newspapers and magazines, and through the media sources on the Internet, I find myself constantly bombarded by thoughts that such and such would make a good topic for an editorial. Sometimes I have gone so far as to form a sort of outline in my head. Such exercises, though, are most often simply the vagaries of a dilapidated brain, and when the time comes to put pen to paper, euphemistically speaking, the cupboard is bare. That is particularly true when such a subject as diabetes is under discussion. The last thing I learned about the treatment of diabetes mellitus was to watch the urine glucose with a dipstick, and cover it with insulin. That was protamine zinc insulin (PZI). I recall fellow students with diabetes stopping to stick a needle into their quads, and—squirt. The pathology I can tell you about. But treatment...

As I read through the papers submitted for this magazine, by way of editing them I discovered how much treatment has changed, and how advanced it has become. I also discovered that some other maladies that by way of personal experience I know considerably more about, hold some important things in common with diabetes mellitus. Among these are that their management requires precision, consistency, and compulsive, absolute compliance with the treatment regimen. That such compliance is a requisite not only for the patient but for the treating physician as well is well demonstrated in this issue's Loss Prevention Case of the Month, in which neither the patient nor those charged with management of her disease were attentive to those needs, with disastrous consequences.

I shall dismiss the careless inattention to protocol by the physician in this case simply by saying he ought to have known better, and that because he likely did, his failure to act on it simply compounds his dereliction. A critical part of that dereliction is failure to appreciate the importance of the patient's lack of compliance, and therefore to act on it.

Once upon a time, back in the dark ages of my clinical training, patient compliance with the treatment regimen of diabetes mellitus was of course important, but relative noncompliance seldom led to sudden catastrophe. Most often it led to a series of events that over a period of days would culminate in acidosis and coma. But during that period there were warning signs that were hard for the patient or his family to ignore. At the opposite end was hypoglycemic shock, which could be a major disaster unless tended to relatively quickly, but again, it was unlikely to be fatal unless the warning signs were ignored. That dire possibility was well known to the patient, but the patient also knew that relief was readily available through the simple expediency of getting some sugar into his system by mouth as soon as possible.

As you will discover, in case you didn't already know it, modern treatment, particularly of the young diabetic, if followed to the letter is very sparing of the organs generally attacked by the disease. In this very complex condition that requires a very complex treatment regimen, the catch phrase is "if followed to the letter." That is a tall order, particularly for the young, who tend toward the Scarlet O'Hara mentality of "I'll

think about it tomorrow," and also for those of us in the Over-the-Hill crowd, with our "I hope I'll think about it sometime" dysmentality, something I know very well from close personal observation of me. For diabetics following some of the regimens described in these pages, even a slight deviation can prove disastrous.

I have had to develop a nearly foolproof method for taking my blood pressure medicine twice a day. That medication is my critical one. When I get up of a morning I take a dose, and put the evening's dose in a small bottle. If it's still there at bedtime I haven't taken it. If it isn't there, I have. I get very tired of trying to remember other things, such as antibiotics, that get tossed in on odd schedules, and vitamins, which don't.

If I get worn out by trying to stay with such an easy, simple schedule, think what it must be like being a diabetic on some of their described schedules. It is hard for me to see how some of them are able to think of anything else besides desperately trying to stay alive. They are bound to need all the help they can get. That, Doctor, is where you and your people come in. Taking care of all but the mildest of diabetic cases is serious business. There is no such thing as an "easy" procedure on a diabetic. Things can go awry in a hurry. Somebody has to be in charge all the time. In our case of the month, no one was. It is also up to you to help the diabetic to work out a schedule that will accommodate his regimen. Maybe the social worker will do it, but whether or not, your patient is your responsibility. Noncompliance is seldom willful, but for a variety of reasons it is common.

It is popular these days to think in terms of the "team effort." That is all very well, but somebody has to be in charge of the case. If that patient is *your* patient, Doctor, that somebody in charge has to be you, and insofar as it is possible, any lack of compliance is *your* problem.

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

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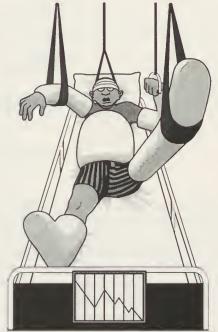
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Original Contribution

Management of Type 2 Diabetes Mellitus

Mary Beth Murphy, RN, MS, CDE, MBA; Abbas E. Kitabchi, PhD, MD

Diabetes mellitus (DM) is the most common endocrinopathy, and consists of the abnormal metabolism of carbohydrate, protein, and fat. It is characterized by fasting or postprandial hyperglycemia, and if not properly managed it results in chronic and acute complications resulting in a shortened life span. DM affects about 16 million Americans, or about 6% of the population, of which about 6 million are not aware of their diabetes. Each year about 800,000 Americans develop diabetes, which represents more than 2,200 new patients every day. DM is the most common cause of new blindness, end stage renal failure, and nontraumatic lower limb amputation. The prevalence of heart attack and stroke is two to four times greater than in nondiabetics. The direct and indirect cost of DM in the United States is in excess of \$100 billion per year, of which more than 60% is spent on inpatient and outpatient hospital visits.

In 1997 there were 206,042 adults in Tennessee with the diagnosis of diabetes, which represented 5.1% of the population. An additional 1,750,245 persons were deemed at risk for the development of diabetes because of age, obesity, and sedentary lifestyle. Those with diabetes in the state of Tennessee suffer many of the chronic complications of diabetes. In 1997 these included 315 new cases of blindness, 1,441 lower extremity amputations, and 654 new cases of end stage renal disease. Of the 74,616 diabetes-related hospitalizations in 1997, 23,583 were for cardiovascular disease. Finally, diabetes contributed to the death of 4,054 Tennessee residents in 1997. The total annual economic direct and indirect costs due to diabetes in the state of Tennessee in 1997 totaled approximately \$2.7 billion. Therefore, the annual cost of health care for diabetes in Tennessee is about \$13,000 compared to \$2,700 for persons without diabetes.^{1,2}

The results of four major multi-center trials in the last decade have clearly established that control of hyperglycemia, demonstrated by reduction of glycated hemoglobin (HbA_{1C}), reduces the risk of microvascular complications in types 1 and 2 DM and reduces macrovascular complications

From the Division of Endocrinology and Metabolism, University of Tennessee, Memphis.

in type 2 diabetes.3-7

The pathogenesis of DM is complex, but type 1 (formerly called insulin dependent, ketosis prone, or juvenile onset diabetes) has an autoimmune basis, and occurs before the age of 40. A combination of multiple factors leads to the destruction of islet cells, resulting in insulinopenia and hyperglycemia. The pathogenesis of type 2 DM is more complex, as it is a polygenic disease marked by peripheral insulin resistance, beth-cell deterioration, and uncontrolled hepatic glucose output. It starts with ineffective insulin action and postprandial hyperglycemia leading to beta-cell deficit, and eventual fasting hyperglycemia. Table 1 provides the clinical and biochemical characteristics of type 1 and type 2 diabetes.⁸

Screening Guidelines and Current Diagnostic Criteria

Over one-third of the 16 million Americans with diabetes are undiagnosed. Persons with type 2 DM are at significant risk for the development of peripheral vascular disease, stroke, and coronary artery disease, as well as microvascular complications such as eye, kidney, and nerve disease. Therefore, early detection of diabetes is an important factor in decreasing the impact of the chronic complications of diabetes. The American Diabetes Association (ADA) recommends screening for type 2 DM at three-year intervals in persons who exhibit one or more of the following high-risk characteristics:

- 1. Family history of diabetes (i.e., parents or siblings with diabetes);
- 2. Obesity (i.e., ≥20% over ideal body weight or BMI ≥27 kg/sq m);
- 3. Race/ethnicity (e.g., African-Americans, Hispanic-Americans, Native-Americans, Asian-Americans, Pacific Islanders);
 - 4. Age ≥45 years;
- 5. Previously identified as impaired fasting glucose or impaired glucose tolerant;
 - 6. Hypertension (≥140/90 mm Hg in adults);
- 7. HDL cholesterol level of \leq 35 mg/dl and/or a triglyceride level \geq 250 mg/dl; and
- 8. History of gestational diabetes or delivery of a baby weighing over 9 pounds.⁹

TABLE 1

Major Characteristics of Types 1 and 2 Diabetes Mellitus

Features	Type 1 DM	Type 2 DM
Age at onset	Usually < 40	Usually > 40
Proportion of all diabetes	About 10 %	About 90 %
Seasonal trend	Fall and Winter	None
Appearance of symptoms	Acute or subacute	Slow or subacute
Metabolic Ketoacidosis	Frequent	Rare*
Obesity at onset	Uncommon	Common
β-Cells	Decreased	Variable
Insulin	Decreased or absent	Variable
Inflammatory cells in islets	Present initially	Absent
Family history of diabetes	Uncommon	Common
Concordance in identical twins	30 - 50%	90 - 95%
HLA Association	Yes	No
Antibody to islet cells (ICA)	Yes	Uncommon
Insulin Autoantibodies (IAA)	Yes (in younger age)	No
"64K" GAD** antibodies	Yes	No
Treatment	Insulin and diet	Diet, weight reduction,
		exercise, OAA†, Insulin

^{*} Except in African Americans; ** Glutamic acid decarboxylase (GAD); † Oral Antidiabetic agents Reference: (8)

Standardized diagnostic tests for physicians' offices include:

- 1. Fasting plasma glucose (FPG) ≥ 126 mg/dl;
- 2. Random plasma glucose (with reported symptoms) ≥200 mg/dl; or
- 3. 75 gm oral glucose tolerance test (OGTT) performed after a minimum of an 8-hour fast (using only a 0 and 120 minute sample) resulting in an FPG \geq 126 mg/dl or a 2-hour sample \geq 200 mg/dl.

However, another test must confirm the diagnosis on a separate day using any of the diagnostic tests listed above. An OGTT is no longer necessary for diagnosis. The easiest and most economical method is the FPG. If necessary, a screening test may be performed just after a patient has eaten. Random plasma glucose of ≥160 mg/dl is considered a positive screening test, but a diagnosis can only be made using the standardized tests listed above on two separate days. Glycated hemoglobin, although a valuable clinical management tool, cannot be used as a diagnostic test. See Table 2 for diagnostic criteria for diabetes, impaired fasting glucose and impaired glucose tolerance. 9,10

Community screening tests should be done only on highrisk individuals after an interview or questionnaire has determined risk. Community tests may involve the use of capillary blood glucose testing using a glucose-monitoring device. These devices may be calibrated for whole blood or plasma readings. If the device is calibrated for whole blood glucose readings, an additional 10% to 15% must be added

TABLE 2

Criteria for Diagnosis of Diabetes and Impaired Glucose Tolerant States

Diabetes Mellitus (DM)*

**FPG ≥ 126 mg/dl

Random PG \geq 200 mg/dl with symptoms of DM

2 hPG ≥ 200 mg/dl on 75 gm OGTT

Impaired Glucose Tolerance (IGT)

2 hPG ≥ 140 < 200 mg/dl on OGTT

Impaired Fasting Glucose (IFG)

FPG ≥ 110 and < 126 mg/dl

Gestational Diabetes Mellitus (GDM)

Same criteria as before (i.e., following 100g OGTT, plasma glucose reaching or exceeding any of the following two values 105, 190, 165, 145, for fasting, 1 hr, 2 hr, 3 hr respectively). Screen only high-risk subjects.

* A diagnosis of diabetes must be confirmed on a separate day by either FPG, random PG (with

symptoms) or OGTT.

*FPG = Fasting Plasma Glucose; OGTT = Oral Glucose Tolerance Test; 2hPG = 2 hr. Postload Glucose following a 75gm glucose load

Reference: (9, 10)

to get an equivalent plasma value. Individuals who have a fasting capillary whole blood glucose reading of ≥110 mg/dl or those who have random whole blood glucose reading of ≥140 mg/dl should be referred for further evaluation. The accuracy of capillary blood glucose testing is very user dependent, and therefore requires strict quality control and proper training of personnel conducting the test. Screening tests using glucose monitoring devices cannot be used for diagnosis; therefore, a positive screening test must be confirmed by two additional plasma readings on separate days.

Overview of Therapeutic Management Options

Recent advances in our understanding of the pathogenesis of DM and the availability of appropriate pharmacologic agents targeted at the specific biochemical lesion have provided the patient and the health care community a means to achieve maximal glycemic control. Table 3 summarizes the metabolic/clinical goals for type 1 and type 2 diabetes. The cornerstone of diabetes management consists of proper diet and exercise. 13

Pharmacologic Therapy. Intensive therapy of type 2 diabetes may necessitate the use of a combination of oral anti-diabetic agents since the United Kingdom Prospective Diabetes Study (UKPDS) clearly showed that only 10% to 15% of such patients can maintain an HbA_{1C} <7% with one agent for a period of ten years. Therefore, multiple forms of oral agents that work at different sites may be necessary to achieve better glycemic control. Oral sulfonylureas may be effective in a thin type 2, who has reduced insulin secretion and may work for a limited time in an obese hyperinsulinemic pa-

TABLE 3 Metabolic/Clinical Goals in Diabetes

	Normal Value	Goal Value
Whole Blood Values		
Average preprandial glucose (mg/dl)	< 100	80 - 120
Average bedtime glucose (mg/dl)	< 110	100 - 140
Plasma Values		
Average preprandial glucose (mg/dl)	< 110	90 - 130
Average bedtime glucose (mg/dl)	< 120	110 - 150
HbA _{1c} %	< 6	< 7
Blood Pressure	< 140/90	< 130/85
LDL Cholesterol (mg/dl)	Varies by CV risk	< 100
HDL Cholesterol (mg/dl)		
Men	> 40	> 45
Women	> 45	> 55
Triglycerides (mg/dl)	< 150	< 200
Body Mass Index (BMI)*	20 - 25	20 - 25

^{*} BMI > 27 is defined as obese

Category of Risk Based on Lipoprotein Levels in Adults with Diabetes*

Risk	LDL Cholesterol	HDL Cholesterol**	Triglycerides
High	≥ 130	< 35	≥ 400
Borderline	100 - 129	35 - 45	200 - 399
Low	< 100	> 45	< 200

Reference: (11 - 12)

tient. A more efficacious agent for the obese patient is a biguanide, which reduces excess hepatic glucose output. On the other hand, individuals with elevated 2hPP glucose and high HbA_{1C} may benefit from the use of an alpha glucosidase inhibitor such as acarbose (Precose). However, a patient with severe peripheral insulin resistance may benefit from a thiazolidinedione such as rosiglitazone (Avandia) or pioglitazone (Actos). Monotherapy may lower HbA, by 0.5% to 2.0%, but may not accomplish the goal of HbA_{1C} <7% in a patient with an initial HbA_{1C} >9%. Of necessity, such patients require a combination of one, two, or three agents (i.e., sulfonylureas or aacarbose plus glucophage and rosiglitazone) or a combination agent such as Glucovance (glyburide and glucophage combined). Some diabetologists believe that insulin should be incorporated into the therapeutic plan when two antidiabetic agents are not sufficient to reach therapeutic goals. In such conditions the recommendation has been to use an evening dose of long-acting or intermediate-acting insulin before supper or at bedtime with or without fast acting insulin (lispro or regular). The usual dose would be one-fourth of the patient's body weight in kg (i.e.,

a 100 kg patient will use 100/4 or 25 units of insulin) in the evening plus oral agents once or twice daily.

Intensive insulin therapy is not recommended in certain older individuals and in those with severe macrovascular complications, in young children, or in those with hypoglycemic unawareness. The use of an insulin pump has been an important adjunct to therapy in brittle diabetes and more recently in type 2 individuals with unpredictable work and food intake schedules. Also the insulin pen and portable pen-like glucose monitoring systems have simplified glucose monitoring, with better management of glucose levels in such individuals. See references 14, 15, and 16 for further guidelines on therapeutic management of type 2 diabetes.

Initial Management and Follow up

The UKPDS clearly demonstrated that intensive control of blood glucose benefits the microvascular complications of diabetes. A median HbA_{1C} value of 7.0% in the intensively controlled group versus a value of 7.9% in the conventional group decreased the overall microvascular complication rate by 25%. Additionally, epidemiologic analysis demonstrated that for every percentage point decrease in HbA₁₀, there was a decreased risk for the development of microvascular complications of 35%, a 25% reduction in diabetes-related deaths, a 7% reduction in all cause mortality, and an 18% reduction in combined fatal and nonfatal myocardial infarction. Another important outcome in the intensively controlled blood pressure group was that achieving a mean blood pressure of 144/82 mm Hg significantly reduced stroke, heart failure, microvascular complications, visual loss, and diabetes-related deaths.17

It is clear, therefore, that clinicians should strive for intensive control of glucose, lipids, and blood pressure in both type 1 and type 2 diabetes with the following exceptions: those unable to comprehend/carry out the treatment regimen; those with a shortened life expectancy; those with advanced systemic disease; those patients of advanced age; and those who may have an increased risk of severe hypoglycemia.

Specific goals of the treatment plan should include daily blood glucose self-monitoring, which should be frequent enough to achieve metabolic goals (Table 3) regardless of the treatment agent(s). Furthermore, a multifaceted approach for the reduction of cardiovascular risk factors is paramount in the initial evaluation/treatment and follow-up of all patients with type 2 diabetes. For further guidelines on the components of the initial visit and the frequency of follow-up evaluations refer to reference 11.

Retinopathy. Since the duration of type 2 DM is difficult to discern, in individuals ≥30 years of age a dilated ophthalmologic examination should be performed by an ophthalmologist with experience evaluating and treating diabetes. This should be done at diagnosis and yearly unless condi-

^{*} Data are given mg/dl.

** For women, HDL Cholesterol should be increased by 10 mg/dl.

tions warrant more frequent evaluation and treatment.

Nephropathy. Microalbuminuria is the earliest manifestation of diabetic nephropathy, and is a marker of increased cardiovascular morbidity and mortality in type 1 and 2 DM, and indicates the need to screen the patient for possible vascular disease. Therefore, annual urine albumin excretion should be assessed. 11 Additionally, timed creatinine clearance tests as well as serum creatinine and BUN should be performed at least annually as an assessment of renal function. Hypertension is associated with an expanded plasma volume, increased peripheral vascular resistance, and low renin levels. Aggressive blood pressure control to a level of <130/85 mm Hg is of paramount importance in the prevention and treatment of diabetic nephropathy by decreasing the rate of fall of the glomerular filtration rate. 17 Aggressive blood pressure control significantly reduces mortality from 94% to 45%, and decreases the need for dialysis and transplantation from 73% to 31% sixteen years after the development of nephropathy. 18 The use of ACE inhibitors in the treatment of hypertension in diabetes has been shown to have a greater protective effect than other blood pressure agents, even when blood pressure was reduced to similar levels. Further, some studies have shown that there is benefit in using an ACE inhibitor in the prevention of diabetic nephropathy in normotensive type 1 and type 2 diabetes with microalbuminuria. 19 Therefore, the use of ACE inhibitors is recommended in all normotensive persons with type 1 diabetes with microalbuminuria because of the rate of progression of end stage renal disease (ESRD) after the onset of microalbuminuria. However, because the rate of progression to ESRD is more variable in type 2 DM, less is known about the benefit of ACE inhibitors in normotensive type 2 DM. Therefore, these agents are recommended only after the diagnosis of concomitant hypertension or progression of microalbuminuria. Precautions to consider in the use of ACE inhibitors include the development of hyperkalemia or cough. These agents are contraindicated in pregnancy and in those with bilateral renal artery stenosis or advanced renal disease.

Foot Care. Patients should have an evaluation of the lower extremities at every visit to determine if high-risk attributes exist which increase the risk for future amputation. These include peripheral neuropathy; altered biomechanics such as evidence of increased pressure (callus formation, erythema, hemorrhage under a callus), or limited joint mobility, bony deformity, or severe nail pathology; peripheral vascular disease; and history of ulcers or amputation²⁰

Cardiovascular Disease. Type 2 DM is associated with a twofold to fourfold risk of coronary heart disease (CHD). Risk factor reduction should be incorporated into the overall treatment plan to reduce cardiovascular disease. Typically, individuals with type 2 DM demonstrate elevated triglycerides and low HDL cholesterol. Elevated LDL cholesterol in

type 2 DM is not significantly different than that of the general population. Clinical trials on the relationship of LDL lowering and the incidence of subsequent CHD have had only small numbers of individuals with type 2 DM. These trials have shown that lowering LDL cholesterol using HMG CoA reductase inhibitors reduced CHD events. Therefore, treatment guidelines are based on lowering LDL levels, as well as incorporating interventions to raise HDL cholesterol and lower triglyceride levels. For treatment decisions based on LDL cholesterol and guidelines for treatment of diabetic dyslipidemias refer to reference 12.

Patients with diabetes who have established CHD warrant further testing for risk stratification. Patients with diabetes without a history of a cardiac event or symptoms suggesting CHD should have cardiac testing if there is typical or atypical cardiac symptoms, resting ECG suggestive of ischemia or infarction, peripheral or carotid occlusive arterial disease, and a sedentary lifestyle at age >35, and plans for a vigorous exercise program, and if there is diabetes having two or more of the following risk factors: Total cholesterol ≥240 mg/dl, LDL cholesterol ≥160 mg/dl, HDL cholesterol <35 mg/dl, blood pressure >140/90 mm Hg, cigarette use, family history of premature CHD, and + microalbuminuria.¹¹

Aspirin (enteric coated 81-325 mg/day) should be used as a secondary prevention approach in men and women with diabetes who are >21 years of age who have existing macro-vascular disease, unless there is a history of aspirin allergy, bleeding tendency, current anticoagulant usage, or gastrointestinal or hepatic disease. Furthermore, aspirin should be considered as a primary prevention tool in high-risk individuals who have family history of coronary artery disease; current history of cigarette use; hypertension; BMI >27.3 in women or 27.8 in men or are >120% IBW; +microal-buminuria; cholesterol of >200 mg/dl, an LDL cholesterol of 100 mg/dl, an HDL <45 mg/dl in men and <55 mg/dl in women, or a triglyceride value of >200 mg/dl; age >30 years.²¹

Education. Initial and periodic educational sessions should be incorporated into the treatment plan either in the setting of the physician's office or developed in conjunction with an extended team such as a local nutritionist and/or hospital-based ongoing educational program, with referral to consultants as needed.

There have been significant improvements in the care of individuals with diabetes over the past decade. These include better agents with which to control blood glucose, lipids, and blood pressure, more accurate and portable devices to test blood glucose and administer insulin, and better laboratory measurements to assess overall control of diabetes (i.e., HbA₁₀).

On the other hand, newer and sustained efforts need to continue for safe and effective models for the treatment of obesity, which is a growing epidemic in this country, and a major risk factor for the development of type 2 diabetes. Over

30% of Americans are overweight, and children are becoming more sedentary and developing type 2 DM at a growing rate. Due to the earlier onset of these type 2 individuals, chronic complications will surface at a younger age and place an added population at risk for the development of macrovascular disease and further stretch our health care dollars. Attention to the "epidemic" of sedentary lifestyle diseases will be an important focus for clinicians throughout the next decade.22

References

- 1. United States Census Bureau Statistics, 1998.
- 2. National estimates and general information about diabetes in the United States: Diabetes Fact Sheets, 1997. Atlanta, US Dept of HHS, Centers for Disease Control and Prevention
- 3. Reichard P, Nilsson B-Y, Rosengvist U: The effect of long-term intensified insulin treatment on the development of microvascular complications of diabetes mellitus. N Engl J Med 329:304-309,1993.
- 4. The DCCT Research Group: The effect of intensive treatment of diabetes on the development and progression of long-term complications of insulin-dependent diabetes mellitus. N Engl J Med 329:977-986, 1993.
- 5. Ohkubo Y, Kishikawa H, Araki E, et al: Intensive insulin therapy prevents the progression of diabetes microvascular complications in Japanese patients with non insulin-dependent diabetes mellitus: a randomized prospective six year study. Diabetes Res Clin Pract 28:103-117, 1995.
- 6. United Kingdom Prospective Diabetes Study Group: Intensive blood glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in pa-

tients with type 2 diabetes (UKPDS 33). Lancet 352:837-853, 1998.

- 7. United Kingdom Prospective Diabetes Study: Effect of intensive blood glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34). Lancet 352:854-865, 1998.
- Kitabchi AE, Murphy MB, Sherman A, et al: Diabetes mellitus, in Ling FW (ed): Primary Care in Gynecology. Baltimore, 1996, pp 279-298.
- 9. American Diabetes Association. Screening for type 2 diabetes. Diabetes Care 23(1):S20-S23, 2000.
- 10. American Diabetes Association. Report of the expert committee on the diagnosis and classification of diabetes mellitus. Diabetes Care 23(1):S4-S19, 2000.
- 11. American Diabetes Association. Standards of medical care for patients with diabetes. Diabetes Care 23(1):S32-S42, 2000.
- 12. American Diabetes Association. Management of dyslipidemia in adults with diabetes. Diahetes Care 23(1):S57-S60, 2000.
- American Diabetes Association. Nutrition recommendations and principles for people with diabetes mellitus. *Diabetes Care* 23(1):S43-S46, 2000.
 - 14. Physicians Desk Reference, ed 54, 2000. Medical Economics Company, Montvale, NJ
 - 15. Kitabchi AE, Bryer-Ash M: NIDDM: new aspects of management. Hosp Prac 32:135-164, 1997.
- 16. Heinemann L, Linkeschova R, Rave K, et al: Time-action profile of the long-acting insulin analog insulin Glargine (HOE901) in comparison with those of NPH insulin and placebo. Diabetes Care 23:644-649, 2000.
- 17. United Kingdom Prospective Diabetes Study Group: Tight blood pressure control and the risk of macrovascular and microvascular complications in type 2 diabetes (UKPDS 38). Br Med J 317:703-713, 1998.
 - 18. American Diabetes Association. Diabetic nephropathy. Diabetes Care 23 (1):S69-S76, 2000.
- 19. Yusuf S, Sleight P, Pogue J, et al: Effects of an angiotensin-converting-enzyme inhibitor, ramipril, on cardiovascular events in high-risk patients. The Heart Outcomes Prevention, Evaluation Study Investigators. N Engl J Med 342:145-153, 2000.
- 20. American Diabetes Association. Preventive foot care in people with diabetes. Diabetes Care 23(1):\$55-\$60, 2000.
 - American Diabetes Association. Aspirin therapy in diabetes. *Diabetes Care* 23(1):S61-S62, 2000.
 Kopelman PG: Obesity as a medical problem. *Nature* 404:635-643, 2000.

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Original Contribution

Thiazolidinediones— A Means to Endpoint Intervention

Terri W. Jerkins, MD

After the release of the Diabetes Control and Complications Trial data in 1993, it was comforting to assume diabetes was simply a matter of glucose control. In insulin-dependent diabetes (IDDM), tight control was shown to prevent microvascular and macrovascular complications and to slow the progression of complications already present.¹

The issue of macrovascular complications in non-insulindependent diabetes (NIDDM) is frightening from both medical and financial standpoints. Eighty percent of patients with NIDDM will die of cardiovascular (CV) disease. More than 90% of the diabetics in the United States have NIDDM.² Additionally, the disease is occurring in younger age groups all the time. According to data from the American Academy of Pediatrics in 2000, 8% to 45% of the children diagnosed with diabetes under the age of 17 years has the non-insulinderpendent form of diabetes. The risk of NIDDM in children was previously 2%. The rise is linked to the rising incidence of childhood obesity.3 Forty percent of all patients with NIDDM will have a major vascular event by the time they have had the disease for 15 years. There are no data to suggest that early onset of the disease will alter this time line. Women have an even greater increase in their risk of coronary artery disease, and certain ethnic populations such as Hispanics and Native Americans have a greatly increased risk of all complications. In the United States the annual direct and indirect cost of diabetes care exceeds \$98 billion.²

The United Kingdom Prospective Diabetes Study was undertaken to determine the effects of glucose and blood pressure control on diabetes endpoints, most notably cardiovascular endpoints. Since this is the cause of death for most patients with NIDDM, prevention of CV death is obviously our treatment endpoint. This study of more than 5,000 newly diagnosed diabetics indicated that tight glucose control did not remove the risk of CV death. A 16% reduction in myocardial infarction occurred, but was not statistically significant. However, early use of insulin sensitization, which in this study consisted of the use of metformin, reduced all cause mortality, and fatal and nonfatal myocardial infarction. This

protective effect of metformin was not seen in patients who had failed on sulfonylureas, and therefore had beta islet cell burn out and a longer duration of disease.⁴

Metformin cannot be used in all patients with NIDDM. It is contraindicated in patients with impaired renal function and in patients who have another reason to have acidosis, such as with chronic obstructive pulmonary disease. In addition, metformin does not prolong beta islet cell survival, and in the UKPDS, patients taking metformin ultimately progressed to insulin requirement. These data fueled the search for other insulin sensitizers.

Insulin resistance appears to play a huge role in the development of CV disease even before glucose tolerance is lost. The Quebec Cardiovascular Study provides the strongest evidence that hyperinsulinemia leads to the development of CV disease. When all other risk factors, including lipoprotein abnormalities, were adjusted, elevated insulin levels still positively predicted the risk of coronary artery disease.⁶

Insulin resistance is defined as the need for an increased amount of physiologic insulin to obtain a specific physiologic effect. This results in the secretions of an increased amount of insulin to maintain a normal glucose. During this process, the usual oscillations of insulin secretion are lost, and the body appears to make an increased amount of other beta islet cell products such as proinsulin, which appears to be more atherogenic than insulin.8 As the beta islet cells struggle to keep up insulin demand, a first phase defect in insulin secretion develops, and progresses to frank postprandial hyperglycemia. During this transition, patients who will have NIDDM develop a cluster of physical and laboratory effects, known as the cardiac dysmetabolic syndrome. These effects are production of abnormal lipids with an increase in triglycerides and oxidized LDL and a decrease in HDL, elevated blood pressure, and increased PAI-1 levels, which are associated with an increased clotting risk. Obviously the perfect insulin sensitizer would have the ability to correct each of these factors and to cause antecedent vascular disease to regress. The perfect sensitizer would also spare native beta islet cells and prolong the time to exogenous insulin requirement. Once clinical diabetes occurs, the perfect insulin

From Midstate Endocrine Associates, Nashville.

sensitizer would also allow for good glucose control, since postprandial lipids parallel postprandial blood sugars, and since tight glucose control is necessary to prevent microvascular complications such as retinopathy, nephropathy, and neuropathy in both IDDM and NIDDM.

Muscle, fat, and liver tissues are also affected by insulin secretion, having on their cell membranes specific insulin receptors that help to mediate the formation of glucose transporters to carry glucose into the cells. When insulin binds to the cell membrane, nuclear proteins are stimulated to mediate the intracellular (post receptor) effects of insulin. PPARgamma (peroxisome proliferator receptor-gamma) is a nuclear receptor that is activated in the presence of insulin. Its actions include protein transduction and the activation of genes involved in glucose and lipid metabolism. This includes the glucose transport proteins, glut-4, glut-2 and glut-1.9 A class of drugs known as thiazolidinediones has been found to act as PPAR-gamma receptor agonists. Two members of this family are currently available for clinical use in the treatment of NIDDM in the United States. They are pioglitazone (Actos) and rosiglitazone (Avandia). A third drug, troglitazone (Rezulin), was removed from the market in March of this year due to hepatotoxicity risk.

Thiazolidinediones have equal effects to insulin secretagogues like the sulfonylureas as first line diabetes therapy. Like all insulin sensitizers, they are dependent on the presence of endogenous or exogenous insulin to be effective. ¹⁰ Patients with excessive pre-meal glucoses (>200 mg/dl) may fail to respond fully to insulin sensitizers due to glucose toxicity and inhibition of insulin secretion by impaired glucose kinase activity.

Sulfonylureas and exogenous insulin are associated with weight gain, and both agents may cause hypoglycemia. The advantage of thiazolidinediones on glucose control is the lack of hypoglycemia when they are used as single agents. ¹⁰ They are insulin sparing. Recent data suggest they are able to preserve beta islet cell function in laboratory animals that are models for NIDDM. Beta islet cell regranulation instead of increased insulin gene expression manifest this sparing effect. ¹¹ If this effect is seen in humans with NIDDM, it would prevent some of the excess weight gain that may be seen when patients with NIDDM progress to insulin requirement. The ability of thiazolidinediones to affect glucose does not appear to wane with duration of diabetes unlike metformin.

Thiazolidinediones have been shown to exert CV protective effects that are not seen in any other glucose modulating drugs. One of the major risk factors for CV disease in patients with NIDDM is dyslipidemia. The dyslipidemia of NIDDM includes decreased levels of HDL and increased levels of small dense LDL and triglycerides. Small dense LDL (oxidized LDL) appears to be toxic to the endothelium and may cause plaque instability and an increased risk of plaque

rupture with acute vessel occlusion. Troglitazone has been shown to decrease LDL and HDL oxidation in vivo and in vitro. 12,13 HDL is increased to a degree equal to or exceeding that of statin therapy. In addition, thiazolidinediones have been shown to lower triglycerides up to 26%. These effects are seen even when the drugs are combined with insulin secretagogues or exogenous insulin. 14

NIDDM is also associated with excess activation of the renin-aldosterone-angiotensin system and hypertension. The management of elevated blood pressure in NIDDM is considered of paramount importance because increased blood pressure promotes endothelial damage and plaque instability. The goal of blood pressure management in NIDDM is 130/85 mm Hg or less, average. Thiazolidinediones were initially developed as antihypertensive drugs, and they have a weak calcium channel blocking effect. They have been shown to increase cardiac index via an increase in stroke volume. This effect appears to increase with duration of therapy and is thought to be mediated by reduction in systemic vascular resistance. At least a part of this effect may be due to the insulin-sparing effect of these drugs. They improve endothelial-related vasodilation and arterial flow. 15

NIDDM is a hypercoagulable state associated with increased levels of PAI-1 (plasminogen activator inhibitor-1) and a reduction in fibrinolysis. Thiazolidinedione therapy has been associated with a significant fall in PAI-1 levels alone and in combination with other glucose-lowering drugs. These data suggest that the class could help correct the hypercoagulable state caused by NIDDM.¹⁶

The coronary lesions of patients with NIDDM have been extremely difficult to treat. Patients have not responded to angioplasty or stenting as well as patients without NIDDM. Some of this effect appears to be mediated via VEGF (vascular endothelial growth factor). Troglitazone was previously shown to inhibit vascular smooth muscle cell growth and intimal hyperplasia. Troglitazone was also shown to reduce intimal hyperplasia after coronary stent implantation by serial intravascular ultrasound.¹⁷ Since patients with NIDDM develop diffuse vascular disease, this finding holds promise to prevent or even regress small vessel disease. In support of this concept, troglitazone has also been shown by serial ultrasound to thin the carotid intimal medial complex. VEGF is also thought to play a role in proliferative retinopathy. The drug class may have a preventive role in the development of diabetic eye disease.

Albuminuria is a marker of diabetic renal damage in IDDM. Microalbumin excretion appears to be evidence of a much deeper problem in NIDDM. This laboratory finding has been identified in patients with impaired glucose tolerance as well as in patients with NIDDM. The finding correlates with the risk of stroke and other atherosclerotic events in patients with IGT (impaired glucose tolerance) and

NIDDM. The thiazolidinediones have been shown to reduce microalbumin excretion by a mechanism not related to blood glucose control.¹⁸

The well-publicized downside of thiazolidinedione therapy is the risk of hepatotoxicity. This appears to be an idiosyncratic reaction and is associated with other preexisting liver impairment. This toxicity was seen with troglitazone but has not yet been seen with pioglitazone or rosiglitazone. These drugs should not be used in patients with liver disease, and transaminase testing should be performed every two months during the first year of therapy and on each follow-up visit thereafter. Patients should be counseled regarding other liver toxins, including alcohol and acetaminophen. ^{19,20}

This drug class is also associated with peripheral edema and a rare fall in the hematocrit. The class is safe in patients with chronic renal failure. Reduction of insulin levels may lead to the resumption of ovulation in women with polycystic ovarian syndrome. This may culminate in pregnancy. All women of childbearing age should be warned of the risk of pregnancy and the birth defects associated with poor glucose control. All women with diabetes must be in tight control for three months prior to conception. This class of drugs is category C for pregnancy, but it should not be used in lieu of insulin if pregnancy is planned. Women with NIDDM who become pregnant while on a thiazolidinedione should be immediately switched to insulin.^{19,20}

Pioglitazone is approved for use as monotherapy and in combination with sulfonylureas, metformin, and insulin. It is marketed in 15, 30, and 45 mg tablets and is taken once a day. The maximum dose is 45 mg. ¹⁹ Rosiglitazone is approved for use as monotherapy and in combination with sulfonylureas and metformin. It is marketed in 4 mg and 8 mg tablets, and may be given daily or twice daily. The maximal dosage is 8 mg per day. ²⁰

The thiazolidinediones represent the first class of insulin sensitizers that offer help against the metabolic malignancy of NIDDM. In using these drugs when patients question their safety, it is important to remind ourselves and our patients that pioglitazone and rosiglitazone have not been associated with severe hepatotoxicity, and that NIDDM is most certainly a debilitating, disabling, and ultimately lethal disease. As clinicians treating NIDDM, we must ever remind ourselves that we must treat much more than just the blood glucose. The treatment goal is the delay or prevention of vascular disease and microvascular complications.

References

- Diabetes Control and Complications Trial Research Group: The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. N Engl J Med 329:977-986, 1993
- American Diabetes Association, Diabetes Facts and Figures. Available at: http://www.diabetes.org. Accessed August 13, 2000.
- American Academy of Pediatrics. News Release Rise in Childhood Obesity Linked to Increase in Type II Diabetes. Available at: http://www.aap.org. Accessed August 13, 2000.

 UK Prospective Diabetes Study Group. Effect of intensive blood-glucose control with
- 4. UK Prospective Diabetes Study Group. Effect of intensive blood-glucose control with metformin on complications in overweight patients with type II diabetes (UKPDS 34). Lancet 352:854-865, 1998
- 5. Feinglos MN, Bethel MA: Oral agent therapy in the treatment of type 2 diabetes. Diabetes Care 22: C61-64, 1999
- Despres J-P, Lamarche B, Mauriege P, et al: Hyperinsulinemia as an independent risk factor for ischemic heart disease. N Engl J Med 334:952-957, 1996.
 Reaven GM: Pathophysiology of insulin resistance in humans. Physiol Rev 75:473-486, 1995.
- Reaven GM. Pathophysiology of insulin resistance in humans. Physiol Rev 15, 413-486, 1995.
 Haffner SM, Gonzalez C, Mykkanen L, et al: Total immunoreactive proinsulin, immunoreactive insulin and specific insulin in relation to conversion to NIDDM: the Mexico City Diabetes Study. Diabetologia 40:830-837, 1997.
 Turner NC, Clapham JC: Insulin resistance, impaired glucose tolerance and non-insulin-
- Turner NC, Clapham JC: Insulin resistance, impaired glucose tolerance and non-insulindependent diabetes, pathologic mechanisms and treatment: current status and therapeutic possibilities. Prog Drug Res 51:33-94, 1998.
- 10. Fonseca VA, Valiquett TR, Huang SM, et al: Troglitazone monotherapy improves glycemic control in patients with type 2 diabetes: a randomized, controlled study. The Troglitazone Study Group. J Clin Endocrinol Metab 83:3169-3176, 1998.
- Smith S, Boam D, Cawthorne MA, et al: Rosiglitazone increased pancreatic islet area, density and insulin content but not insulin gene expression. *Diabetes* 47(suppl 1):A18, Abstract 0072, 1998.
- 12. Tack CJ, Smits P, Demacker PN, et al: Troglitazone decreased the proportion of small, dense LDL and increases the resistance of LDL to oxidation in obese subjects. *Diabetes Care* 21:796-799, 1998
- 13. Cominacini L, Garbin U, Fratta Pasini A. Troglitazone reduced LDL oxidation and lowers plasma E-selectin concentration in NIDDM patients. *Diabetes* 47:130-133, 1998.
- Ghazzi MN, Perez JE, Antonucci TK, et al: Cardiac and glycemic benefits of troglitazone treatment in NIDDM. The Troglitazone Study Group. *Diabetes* 46:433-439, 1997.
 Murakami T, Mizuno S, Ohnaka M: Troglitazone restores endothelium-dependent vasomo-
- tion of resistance coronary artery. Circulation 98(suppl):1-111, 1998.

 16. Fonseca VA, Reynolds T, Hemphill D, et al. Effect of troglitazone on fibrinolysis and
- 10. Poissea VA, Reynolds 1, Hemphili D, et al. Effect of frogliazzone on Horinorysis and activated coagulation in patients with non-insulin-dependent diabetes mellitus. J Diabetes Complications 12:181-186, 1998
- 17. Takagi T, Yoshida K, Akasaka T, et al: Troglitazone reduces intimal hyperplasia after coronary stent implantation in patients with type 2 diabetes: a serial intravascular ultrasound study. J Am Coll Cardiol 33:100A, 1999.
 18. Imano E, Kanda T, Nakatani Y, et al: Effect of troglitazone on microalbuminuria in patients
- 18. Imano E, Kanda T, Nakatani Y, et al: Effect of troglitazone on microalbuminuria in patient with incipient diabetic nephropathy. Diabetes Care 21:2135-2139, 1998.
- Takeda America Research and Development Center. Actos^[TM] Prescribing Information. July 1999.
 - 20. Smith Kline Beecham. Avandia^R Prescribing Information. May 1999.

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May 3-5, 2001- Cool Springs Marriott, Franklin

Original Contribution

Diabetes Management Tools

Thomas DiNella, MD; Dara Botts, RNC, FNP

The American Diabetes Association (ADA) has been actively involved in the development and dissemination of diabetes care standards, guidelines, and related documents for many years. The information is a convenient and important resource for all health care professionals who care for people with diabetes. The ADA clinical practice recommendations consist of position statements that represent official ADA opinion as denoted by formal review and approval by the Professional Practice Committee and the Executive Committee of the Board of Directors.

Reviewed annually, a summary of these recommendations can be found in numerous professional publications. Each

January, the Journal of Clinical and Applied Research and Education-Diabetes Care provides a detailed supplement inclusive of these recommendations and guidelines (see ADA Position Statements in this issue).

As per ADA guidelines, a complete, organized medical record system is essential to provide ongoing care to persons with diabetes. The record should be organized to document not only what has occurred, but also to serve as a reminder of what should be done at appropriate intervals at future patient visits.

Tennessee Diabetes Medical Record

Since diabetes is a chronic illness that requires continuing medical care and education to prevent acute complications and reduce the risk of long-term complications, the Tennessee Diabetes Control Program Advisory Council has developed a medi-

From Summit Medical Associates, Internal Medical Group, Hermitage, TN

cal record tracking tool as shown in Fig 1. It was developed in 1994 as a checklist to enable the provider to track those tasks recommended for the medical management of the patient with diabetes.

Re-evaluated in 2000, it became apparent the record would be more useful if used to track patient outcomes with medical care. Therefore, the record was revised in June 2000 to allow results to be documented in a more concise, better organized manner to enable the provider to track those patient outcomes necessary to ensure appropriate changes in medical care. As outlined under *Periodic Exam*, these guidelines reflect the ADA-recommended components for ongoing clini-



TENNESSEE DEPARTMENT OF HEALTH DIABETES PREVENTION AND CONTROL PROC DIABETES MEDICAL RECORD

	PERIODIC EXAM	Recommended Interval	Date	Date	Date	Date
	PHYSICAL EXAM					
	HT/WT	2 - 4 TIMES/YEAR				
	BP/Pulse	2 - 4 TIMES/YEAR				
•	Pulse/Foot Exam	2 - 4 TIMES/YEAR				
•	Insulin Injection Sites	2 - 4 TIMES/YEAR				
•	Dental Exam	2 - 4 TIMES/YEAR				
•	Sexual Maturation	As Indicated				
	DILATED FUNDUSCOPIC EXAM	Annually				
	LABORATORY					
•	Glucose	Check Patient Log Every Visit				
٠	HB AIC	2 - 4 TIMES/YEAR				
	Lipids Total Cholesterol					
	HDL	Annually				
	LDL					
	Triglyceride					
•	Creatinine	As Indicated				
•	U/A	As Indicated				
•	Microalbuminuria	Annually				
	IMMUNIZATONS					
•	Pneumovax	As Indicated				
•	Flu Shot	Annually				
•	PATIENT EDUCATION Self Glucose Monitoring	Annually and as Indicated				
•	Nutrition/Wt. Mgmt.	Annually and as Indicated				
•	Exercise	Annually and as Indicated				
•	Hyper/Hypoglycemic Prevention/TX	Annually and as Indicated				
•	Recognition of Complications	Annually and as Indicated				
•	Tobacco/Alcohol Use	As Indicated				
	Family Planning	As Indicated				
•	Self Injection/Medication	Annually and as Indicated				
•	Foot Care	Annually and as Indicated				
•	Illness/Sick Day Plans	Annually and as Indicated				
OT	HER (As Appropriate)					
•						

FIGURE 1

cal evaluation and management of patients with diabetes. Adequate space has been provided for those areas that require a lab value or numerical reading for the information. The *Date* area is provided to track the outcome measures with medical management changes.

The *Patient Education* areas may be dated to indicate when the appropriate educational and instructional materials have been provided. As indicated below the educational areas, *Other* allows the provider to track additional aspects that might be pertinent to the management of the patient with diabetes (thyroid and hepatic functions, echocardiogram, podiatry referral, aspirin use, etc.). Free copies of the form are available from the Diabetes Control Program (615-532-4659).

As providers, we have maintained the medical record for our patients with diabetes for more than two years. It has enabled us to record concise data for patient outcomes and assist in the management of diabetes. We have also found that the record is useful for our consultants and in negotiating with third party providers.

Diabetes Algorithm

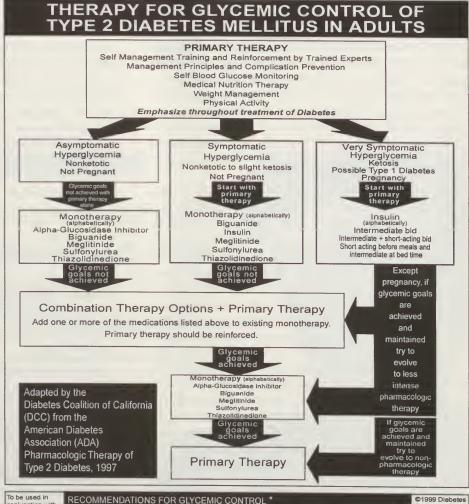
As the recommendations for preventive care and the myriad therapeutic choices for diabetes treatment become increasingly complex, the need for essential components of care must be provided in an easily understood algorithm that facilitates continuity among all providers. The Diabetes Coalition of California and the California Diabetes Control Program have developed such an algorithm (Fig. 2). It facilitates the provider in achieving safe and effective care of patients with diabetes.

Beginning with the primary therapy (which includes self-management training and reinforcement by trained experts, management principles and complications prevention, self-blood glucose monitoring, medical nutritional therapy, weight management, and physical activity), the provider enables the person with diabetes to assume an active role in his medical management plan. It is important to emphasize these goals and values through-

out the treatment. Also included are the ADA recommendations for glycemic control with HbA_{1C} , fasting (preprandial), and bedtime glucose levels. Hemoglobin A_{1C} references are to a non-diabetic range of 4.0% to 6.0% (mean 5.0%, SD±0.5%).

Although medical nutrition therapy (with lifestyle modification) and exercise should be the primary focus of managing diabetes, many times these efforts alone are simply not sufficient to control diabetes adequately. For this reason, the algorithm provides the pharmacologic therapy options to be used in monotherapy or in combination. The Tennessee Diabetes Advisory Council is considering a similar algorithm to assist physicians in selecting their therapy options for patients with diabetes.

FIGURE 2



RECOMMENDATIONS FOR GLYCEMIC CONTROL * conjunction with the Basic Guidelines for Biochemical Index Goal Action Suggested Normal Diebetes Care, Diebetes Coelition Fasting/preprandial glucose <110 ma/dl 80 to 120 mgm/dl <80 or >140 mg/dl Bedtime glucose <120 mg/dl 100 to 140 mg/dl <100 or >160 ma/dl of California, 1999 Available by Fax (916) 324-7764 Glycosylated hemoglobin <6% <7% or phone (916) 445-2547

"These values ere for nonpregnent edults. Goals end "Action suggested" depend on individuel petient circumstances. Such ections mey include enhenced diabetes self-management education, comenegement with e diabetes teem, referrel to en endocrinologist, chenge in phermacological therapy, initietion or increased SMBG, or more frequent contect with the patient. HbAic is referenced to e nondlebetic renge of 4.0-6.0% (mean 5.0%, SD ± 0.5%).

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Original Contribution

Medical Nutrition Therapy in Diabetes: New Beginnings

Becky Pratt Gregory, MS, RD, LDN, CDE

The end of the last century brought with it the greatest change in the management of diabetes since the discovery of insulin. The Diabetes Control and Complications Trial (DCCT) and United Kingdom Prospective Diabetes Study (UKPDS) showed without a doubt that tight blood glucose matters, and resulted in changing the face of diabetes management. ¹⁻³ Patient self-management became a focal issue. According to the *Standards of Medical Care for Patients with Diabetes Mellitus*, "Patient self-management should be emphasized. To this end, the management plan should be formulated in collaboration with the patient, and the plan should emphasize the involvement of the patient as much as possible in problem solving."⁴

Medical nutrition therapy (MNT) is the first-line defense in the management of all types of diabetes. The DCCT and UKPDS, along with many other studies, revolutionized MNT in diabetes resulting in the American Diabetes Association revising the MNT recommendations (Table 1). Bury the "one size fits all" diets, the "tear-sheet" diets, and the pre-set percentages of carbohydrate, protein and fat. Out with "no sugar allowed." MNT of the new century is based on the patient, and designed with the patient's needs and preferences in mind. MNT is the cornerstone of diabetes self-management; thus, the patient's role in the development of the plan is paramount.

The type of diabetes the patient has been diagnosed as having determines the emphasis of the MNT. For those with type 1 diabetes, the meal plan is based on the individual's usual food intake and his usual intake is used as the basis for integrating insulin therapy into the negotiated eating and exercise patterns. It recommends that individuals using insulin therapy eat at consistent times, synchronized with the timeaction of the insulin preparation used. Further, individuals need to monitor blood glucose levels and adjust insulin doses for the amount of food usually eaten. Modern therapy, including multiple daily injections or the use of an insulin pump, allows more flexibility in the timing of meals and snacks,

and the amount of food eaten. With modern therapy, insulin regimens should be integrated with lifestyle and adjusted for deviations from usual eating and exercise habits.

Primary MNT goals for individuals with type 2 diabetes are to achieve and maintain glucose, lipid, and blood pressure levels. The patient's usual intake is an important starting place. Hypocaloric diets and weight loss usually improve short-term glycemic levels, and have the potential to improve long-term metabolic control. However, traditional dietary strategies, and even very-low-caloric diets, have usually not been effective in achieving long-term weight loss. As research continues to elucidate why weight loss and maintenance is difficult for many people, the emphasis for individuals with type 2 diabetes needs to expand beyond weight loss to achiev-

TABLE 1

NUTRITION RECOMMENDATIONS FOR PERSONS WITH DIABETES⁵

Protein

10% - 20% of kcal/day

No evidence supports higher or lower intake

With onset of nephropathy, restrict protein to adult RDA (0.8 gm/kg/day) Carbohydrate

Percentage of total calories can vary

Individualize, based on:

- Individual eating habits
- Blood glucose and lipid goals

Fat

Percentage of calories from total fat can vary, and is based on:

- Nutrition assessment
- Primary problem and desired outcomes:

Obesity/weight reduction: Fat reduction

High LDL-C: NCEP Step II diet

High TG, High VLDL: Moderate fat and CHO intake;

<10% of calories from saturated fat

<10% of kcal/day from saturated fat

Dietary cholesterol ≤300 mg/day

Fiber

Intake recommendations the same as for the general public

Insignificant effect on blood glucose control

High soluble fiber intake may lead to a modest reduction in lipids

- Difficult to achieve by food alone

Sucrose

Scientific evidence does not justify restriction

Guidelines for use: Sucrose and sucrose-containing foods can substitute for other CHO in meal plan; Eaten within the context of a healthy diet

From the Diabetes Research and Training Center, Vanderbilt University School of Medicine, Nashville.

ing and maintaining near-normal blood glucose levels and blood lipids. Several additional strategies can be implemented; however, there is no one proven strategy or method that is uniformly recommended.

To achieve these recommendations, the physician and patients benefit greatly by working in tandem with a registered dietitian (RD). In 1998, legislation was passed in the state of Tennessee that provides the patient with easier access to a RD. Public Chapter 332 states that MNT prescribed by a medical doctor and provided to a diabetes patient by a qualified professional is to be reimbursed by insurance companies. This assisted in removing one of the common obstacles previously faced by the diabetic patient population. Since MNT is an initial and crucial step in diabetes management, physicians are encouraged to assist their patients by having a RD to whom they can refer patients for nutrition management.^{6,7}

The beginning of the century brought great and exciting changes in diabetes management, and provided more options and resources for physicians caring for these patients. The challenge to the health care world is to utilize the resources available to optimize patient care.

References

- 1 American Diabetes Association. Implications of the Diabetes Control and Complications Trial Diabetes 42:1555-1558, 1993.
- 2. UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulfonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes. The Lancet 352:837-853, 1998.
- 3. Fisher EB, Heins JM, Hiss RG, et al. Metabolic control matters; nationwide translation of the Diabetes Control and Complications Trial: analysis and recommendations. US Dept of Health and Human Services, 1993.
- 4. American Diabetes Association: Standards of medical care for patients with diabetes mellitus (position statement). Diabetes Cure 21 (suppl 1):S23-S31, 1998.
- American Diabetes Association: Nutrition recommendations and principles for people with diabetes mellitus. *Diabetes Care* 21 (suppl 1):S32-S35, 1998.
- Delahanty LM. Clinical significance of medical nutrition therapy in achieving diabetes outcomes and the importance of the process. J Am Diet Assoc 98:28-30, 1998.
- 7. The DCCT Research Group: Nutrition interventions for intensive therapy in the Diabetes Control and Complications Trial. J Am Diet Assoc 93:768-772, 1993.



Managing Diabetes

Original Contribution

Insulin Pump Therapy

Casey Page, MD

Insulin deficiency is the hallmark abnormality underlying the abnormal glucose homeostasis in type 1 diabetes mellitus. This is in contrast to the heterogeneous abnormalities characterizing the more common type 2 diabetes mellitus. The insulinopenia seen with type 1 diabetes occurs by an autoimmune process that evolves over weeks to years prior to the diagnosis. The relative degrees of insulin deficiency account for some of the differences in the initial clinical presentation of this disorder seen in medical practice. Totally asymptomatic persons are found, as well as those with frank diabetic ketoacidosis. Although various immunosuppressive and immunologic therapies have been tried for the prevention of type 1 diabetes in a high-risk individual, insulin therapy remains the sole therapy for persons diagnosed with this disorder. Islet cell transplantation, closed-loop artificial pancreas systems, and other innovations continue in various stages of animal and human clinical trials, but these therapies loom large in the future while a cure for type 1 diabetes is sought.

Evolution of Insulin Pump Therapy

Normoglycemia has long been sought by patients and diabetologists. Insulin was discovered in 1923, and it was quickly recognized that a normal or near-normal serum glucose would be the ideal. Only short-acting insulin was available initially, and the emphasis was on multiple daily injections (MDI) centered around meals. Subsequently, modifications of the insulin compound allowed the emergence of intermediate and long-acting insulins. In an effort to minimize the discomfort and inconvenience of multiple daily injections, one or two shots of intermediate or longacting insulin became the typical insulin regimen recommended by practitioners. Despite its convenience, this "conventional therapy" led to a very unphysiologic 24-hour serum insulin profile. Adequate prandial insulinemia was not realized, resulting in post-meal hyperglycemia. Hyperinsulinemia was commonly seen in nocturnal and fasting states, often resulting in symptomatic hypoglycemia.

From the University of Tennessee Diabetes Center, Knoxville

Over the past two decades, the pendulum has started to swing toward the reintroduction of short-acting insulins (Regular or Humalog) to control mealtime glycemia. The Diabetes Control and Complications Trial (DICT) results became available in 1993, unequivocally demonstrating the benefits of intensive insulin therapy: improved glycemic control and a reduction in the risk of chronic diabetic complications. Intensive insulin therapy is commonly defined as three or four injections per day or insulin pump therapy, commonly known as continuous subcutaneous insulin infusion (CSII).

The concept of CSII emerged in the early 1960s, as Dr. Arnold Kaddish fashioned the first device to permit continuous insulin delivery. Larger than a backpack, this device was cumbersome and impractical. After several researchers investigated the utility of providing physiologic basal and prandial intravenous insulin in the 1970s, numerous attempts were made to provide this same physiologic insulin via a subcutaneous route. Keen, Pickup, Timberline, Felid, and others were the first investigators to popularize intensive insulin therapy and the use of portable insulin pumps coupled with self-monitoring of blood glucose (SMBG) to achieve near-normal glycemia. Over the past two decades, insulin pumps have undergone a wealth of improvements, designed both to improve glycemic control and to enhance lifestyle flexibility. Initial pumps were large, bulky and "battery hungry," but technologic advances have allowed newer pumps to be smaller (roughly beeper/pager sized), power-efficient, and easier to program. Where original pumps required an insertion needle to remain in place, modern pumps allow a plastic catheter to remain in place after insertion is achieved with a needle. "Quick-release" infusion set technology has allowed users to disconnect the infusion catheter from the pump to facilitate bathing, exercise, swimming, sexual intimacy, etc. Software advancements have introduced multiple basal rates, temporary basal rates (especially for exercise, illness), suspension of insulin infusion, profiling of insulin boluses, troubleshooting alarms, and variable insulin bolus durations, among others. All of these enhancements have led to an easier integration of CSII into the lives of many persons with type 1 diabetes.

Benefits of Insulin Pump Therapy

The ideal insulin delivery for most persons with type 1 diabetes would be a physiologic insulin regimen that closely resembles normal pancreatic insulin secretion. MDI regimens couple one to two shots of intermediate or long-acting insulin (NPH, Lente, or Ultralente) with mealtime short-acting insulin (Regular or Humalog) to provide both fasting and prandial insulinemia. Problematic in this scheme are the day-to-day variability of insulin kinetics, site-to-site variability of insulin absorption, and the inflexibility of insulin once administered. For many, modern lifestyles demand variable meal amounts and timing, as well as the ability to exercise. Thus, MDI has limitations that are often overcome by insulin pump therapy.

The concept of CSII revolves around the use of basal and bolus insulin. All insulin pumps use either Humalog or Regular insulin (Humulin R, Novolin R, or Velosulin BR) to provide both basal and prandial needs. The basal rate of insulin is expressed as "X" units per hour, typically in a range of 0.2 to 3.0 units, depending on each person's insulin sensitivity. This insulin provides adequate fasting insulinemia, whereas bolus insulin doses are designed to cover postabsorptive insulin needs. Carbohydrate counting utilizes insulin/carbohydrate insulin ratios to cover postabsorptive insulin requirements. High blood glucose insulin boluses are provided to correct for hyperglycemia. Given the rapid absorption and plasma half-life of short-acting insulins in the body, stoppage of insulin infusion enables persons to engage in exercise without serious hypoglycemia, or to treat mild hypoglycemia without the benefit of carbohydrate ingestion. Modern insulin pumps allow the use of multiple basal rate profiles to match insulin requirements to variable daytime and nocturnal needs. As mentioned previously, exercise or periods of increased physical activity (occupational or recreational) require decreased basal insulin, whereas periods of stress or of relative insulin resistance (premenstrual week) require higher basal insulin profiles. The "dawn phenomenon" characterizes an early AM period of relative insulin resistance that requires a higher basal insulin profile. Increased cortisol, growth hormone, and sympathetic activity account for the degree of insulin resistance seen during this period, which usually lasts from approximately 3-4 AM to 8-9 AM. Currently available intermediate- or long-acting insulins do not adequately treat this phenomenon without causing fasting hyperinsulinemia with resultant hypoglycemia. For the visually impaired, administration of insulin boluses through tactile manipulation and verbal confirmation are also possible with current insulin pumps.

When compared with MDI, insulin pump therapy has been shown in numerous studies to decrease the episodes of severe hypoglycemia and to reduce, particularly in adolescents, the hospitalizations for diabetic ketoacidosis. Quality of life and depression scores have generally improved in those patients who were maintained on insulin pump therapy.

Candidate Selection for CSII

Motivation is required of all patients on MDI or CSII who desire to do well. CSII allows a more physiologic mode of insulin delivery in individuals who possess a willingness to be active participants in their own care. Many patients have great misconceptions about insulin pump use prior to serious consideration of this mode of therapy. Common misunderstandings of pump use are that:

- Insulin pumps check blood glucose and are, therefore, an "auto pilot" way to allow for normoglycemia.
- Infusion set needles are indwelling; in reality infusion sets are inserted with a needle which is then withdrawn, leaving a soft, flexible subcutaneous catheter for insulin infusion.
 - Insulin pumps decide the dose of insulin for meals.
- Insulin pump use contraindicates an active lifestyle, especially with exercise.
- Insulin pumps must be worn continuously, i.e., 24 hours/day. In reality, pumps may be removed for showering/bathing, sexual intimacy, exercise, swimming, etc. Many patients express a fear that they will always be "hooked up to a machine" and dependent on this machine for life.
- Insulin pumps are difficult to wear and conceal with commonly worn clothing; it is relatively easy to conceal pumps with casual, as well as with form-fitting formal attire.
- Insulin pumps still require the use of injections for longacting insulin. Pumps use only Regular insulin, or more commonly Humalog, and do not require the use of any other kind of insulin. Nonetheless, it is recommended to keep a bottle of Humalog or Regular insulin on hand, along with syringes, in case pump malfunction occurs.
- Children are unsuitable for insulin pump therapy; because of their variable food intake and highly variable activity, insulin pump therapy can be ideal for children, adolescents, and teenagers who have good family support of diabetes and its management, and who are failing on MDI or who feel unnecessarily constrained by the schedule that MDI mandates.

There are many hurdles in maintaining long-term glycemic control in patients with type 1 diabetes. It is extremely common for persons with long-standing diabetes to have periods of "diabetes burnout," with loss of motivations and enthusiasm to pursue tight glycemic control. Pump patients who "feel well" without periods of severe hypoglycemia or hyperglycemia often become complacent about diabetes control and reduce SMBG with resultant worsening of hemoglobin A₁₀ (HbA_{1C}) and problematic low or high glucoses. This attitude often carries over into carbohydrate counting where patients may start guessing about appropriate insulin boluses for meals with resultant inaccuracies in matching prandial insulin to food intake, again resulting in poor glycemic control. Keeping records about glucoses and insulin amounts is one of the hardest parts about having diabetes; yet in my view this is one of the most important aspects of diabetes control in order to help the patient and health care professional deal with day-to-day glucose problems and spot trends that allow for appropriate and timely insulin/food changes.

Medical Indications for CSII

- Severe hypoglycemia or frequent diabetic ketoacidosis on insulin injections.
 - Diabetic gastroparesis and resultant labile glycemia.
 - · Pregnancy.
 - Extreme insulin sensitivity;
 - Pronounced dawn phenomenon with AM hyperglycemia;
- Early diabetic complications, with a desire to more closely approach normoglycemia and thus slow the progression of these complications.
- Erratic eating, work schedules, and/or variable exercise or physical labor necessitate flexible timing of meal boluses and changes of basal insulin (e.g., persons who work "swing" shifts, athletes, workers with frequent meetings and travel).

Ideal insulin pump candidates are individuals who are motivated, and have demonstrated willingness, to comply with the prescribed diabetes treatment regimen, including an ability to perform frequent SMBG, adjust insulin according to trends, and quantitate food to determine appropriate insulin adjustments.

As one might surmise, based on the aforementioned points, reasonable expectations for patients on pump therapy are:

- A desire to do well and maintain good glycemic control.
- A willingness to quantitate food intake in some fashion, whether it be counting exchanges, carbohydrate counting, or simplistic best "guesstimates" in quantitating "starchy" foods.
- A willingness to follow up with the diabetic health care professional on a regular basis
 - A willingness to do SMBG ≥4 times/day.
- Reasonable expectations regarding insulin pump therapy and what it can do to help diabetes. It is not a cure!
- A maturity level that allows a degree of responsibility for diabetes and pump therapy.
- Ability to troubleshoot diabetes and pump problems, especially those regarding hypoglycemia, hyperglycemia with ketosis, and infusion set site problems.
 - Maintain reasonable hygiene regarding infusion set use.

Relative contraindications to pump therapy may include:

- Unstable psychiatric conditions.
- Unwillingness to do frequent SMBG, i.e., ≥4 times/day.
- Unwillingness to quantitate food intake and take insulin boluses for meals.
- Intense shame regarding diabetes and pump use, and excessive concern about revealing insulin pump usage to others.
- Poor compliance regarding follow-up with the diabetes health care professional.
- Intense fears of pain, needle use (i.e., infusion set needles before removal) and mistrust of pump reliability.

Insulin Pump Initiation

The diabetes care team must carefully set the stage for insulin pump therapy as this is being considered by an appropriately selected patient. Good SMBG patterns as well as knowledge of food quantitation (carbohydrate counting, exchanges, etc.) should be in place, and short- and long-term goals should be discussed as well as the time in which these goals can be expected to be reached. If all needed components are in place, the physician issues a prescription and letter of medical necessity to the insulin pump supplier. The supplier verifies covered benefits with the patient's insurance company and makes the patient aware of the level of insurance coverage provided and any out-of-pocket cost that may be required. When all financial arrangements have been agreed upon, the insulin pump is shipped to the patient or health care provider. At this point, the patient is advised to view a video about pump operation, read the instruction manual, and play with the pump to help familiarize himself with usual pump functions.

At the time of pump training, the diabetes team has the option of allowing the patient to "demo" the pump with saline in lieu of insulin or to go "live" with insulin from the outset. Using saline for a number of days prior to insulin use allows the patient to become familiar with pump operations, wearing a pump, and practice inserting an infusion set several times. Patients who are extremely nervous or tentative about pump therapy initiation and use should be given the opportunity to use saline prior to insulin. In my experience, many patients who are extremely anxious to begin pump therapy do exceedingly well with introduction of insulin during the initial pump training session. Factors such as a patient's age, maturity, support systems, and anxiety about a new technology (among others) influence which of these approaches the diabetes team utilizes. Whereas in the past many centers choose to hospitalize a patient for 23 or more hours to initiate pump therapy, the majority of diabetes professionals choose to start CSII as outpatients, as this setting affords a greater degree of patient comfort and a more fluid integration of it into a person's lifestyle.

At the time of pump training, topics that should be discussed include

- glucose goals during this transition period; it may be advisable for patients to run slightly higher glucoses than is ultimately desirable in order to avoid hypoglycemia and build trust regarding CSII;
 - troubleshooting to prevent diabetic ketoacidosis;
 - treatment of hypoglycemia;
- adjustment of basal and bolus insulin doses. Initially the pump trainer may ask the patient to refrain from changing these without first obtaining agreement from the diabetes team;
- basic pump operations, including giving a bolus for meals, basal rate adjustments, priming and insertion of the infusion

set, pump suspension, and bolus administration for hyperglycemia, etc. Other functions such as use of a temporary basal rate (e.g., exercise) are often saved for a subsequent visit;

• how to wear a pump with clothing and remove a pump for short periods.

It is advisable to discontinue Ultralente insulin 16 to 24 hours before starting a pump, and to discontinue NPH or Lente 8 to 16 hours before. The patient is often advised to check glucose more frequently and/or reduce insulin doses slightly the first 24 hours, in order to prevent hypoglycemia that might result from the residual action of previously injected longeracting insulins. The patient should have a vial and prescription for Regular or Humalog insulin to utilize in their pump. Likewise, the patient should have a glucagon emergency kit at home, in the event of severe hypoglycemia, and urine ketone strips to use during possible ketosis.

During the days immediately following the pump training and use of insulin in the pump, it is customary to communicate with the patient daily to assess the glucose levels and insulin doses to make quick changes in the basal rates and insulin to carbohydrate ratio for meal boluses of insulin. Within one to two weeks, the health care professional may see the patient to discuss further medications of the CSII regimen and to discuss more about troubleshooting for pump malfunction, sick days, exercise, hypoglycemia treatment, prevention of diabetic ketoacidosis, and adjustment of basal and bolus insulin doses based on blood sugar patterns. Although there is a "learning curve" regarding CSII that is ongoing for months to years, most patients are doing well with insulin pump therapy within two to four weeks of pump initiation.

Verification and Adjustment of Basal Insulin

As previously discussed, the foundation of insulin pump therapy is the use of an adjustable dose of short-acting insulin to match the rate of glucose production in the fasting state. This background insulin ensures normoglycemia in the fasting state of nondiabetic persons. Thus, ensuring a correct basal insulin dose with CSII is critical for success. Typically, 35% to 50% of the total daily insulin dose is used for basal insulin, which is spread over 24 hours. For example, if a patient's total daily insulin dose was thought to be 40 units per day, one might decide that 40% of this will be used for basal insulin (40 units X 0.4 = 6 units per day. 16 units per day \div 24 hours/day = 0.6 to 0.7 units/hour). If there is concern that the pre-pump total daily insulin dose was unphysiologic, one may use body weight for basal rate calculation. The body weight in kilograms may be multiplied by 0.22 to obtain the starting basal rate per hour (e.g., weight of 70 kg \times 0.22 = 1.4 units per hour) or weight in pounds X 1.0 = units per hour (e.g., 150 pounds X 1.0 = 1.5 units per hour). Using the two methods for basal rate calculation, the lower of the two calculated basal rates is used for a starting basal rate. Most diabetes teams start with one basal rate at the time of pump initiation, but over half of patients may ultimately require two or more basal rates for proper glycemic control. Most pump users do well with ≥3 basal rates per day. The basal rate is set correctly if the blood glucose remains in the target range during a period of fasting, that is, where there has been no food or bolus insulin over a period of five hours. In any period of such fasting, a rise in fingerstick glucose by ≥30 mg/dl necessitates an increase of basal insulin by 0.1 unit/hour, and a decrease of ≥30 mg/dl necessitates a decrease in basal insulin by 0.1 unit/hour. The early AM increase in glucose production and rise in counter-regulatory hormones, i.e., cortisol and growth hormone, account for the dawn phenomenon. This is observed clinically as an increase in the fingerstick glucose of ≥50 mg/dl from approximately 4 AM to approximately 8-9 AM. It is common for persons utilizing CSII to require a sizeable increase in the early AM basal rate to prevent early AM hyperglycemia.

Meal Boluses and Supplemental Boluses

A majority of the day of most persons is either prandial or postprandial. Thus, it would be expected for meal insulin to comprise a significant portion of the total daily insulin dose. Given the lack of long-acting insulins with insulin pump therapy, it is vitally important for pump wearers to quantitate carbohydrates and have a method for determining meal insulin boluses based on this carbohydrate amount. It is standard to give patients an insulin-to-carbohydrate ratio (units of insulin per gram of CHO) or insulin-per-carbohydrate exchange (units of insulin per 15 gm CHO) to properly match insulin to food to prevent marked postprandial hyperglycemia. Initial ratios for insulin per CHO amount at the outset of pump therapy can be calculated as follows: 450 ÷ total daily insulin dose. Example: The previous insulin dose on injections was 50 units per day. $450 \div 50 = 9$. Therefore, the insulin-to-carbohydrate ratio = 1 unit insulin per 9 gm of carbohydrate. This is used to determine the insulin bolus whenever any carbohydrate is ingested. If the basal rate has been determined to be correct, hyperglycemia or hypoglycemia 1 to 4 hours after meals can be checked to determine if the meal insulin-to-carbohydrate ratio is too low or high. Typically, an insulin bolus at meals should allow the 1 hour postprandial glucose to be ≤180 if the pre-meal glucose is at a target level, i.e., ≤120). Significantly higher or lower post-meal readings may require adjustment of the insulin-to-carbohydrate ratio. Depending on a person's insulin sensitivity, most persons require insulin-to-carbohydrate ratio of 1 unit of insulin per 5-15 gm of carbohydrate. If a patient is accustomed to counting carbohydrate exchanges (15 gm), the insulin-tocarbohydrate ratio can be expressed as units of insulin per "carb" – 15 gm – e.g., 1½ units of insulin per 15 gm (1 "carb"). Persons unable to count carbohydrates can be trained to give insulin per portion of favorite "starchy" foods. Given the lack of longer-acting insulin to cover prandial insulin, it is vital for patients to understand the need to give a bolus of insulin (Humalog or Regular) with each and every carbohydrate ingested. Certain high-protein and/or high-fat foods may cause slower absorption of carbohydrates, resulting in delayed post-prandial hyperglycemia.

The basal insulin is only designed to match endogenous glucose production to ensure adequate glucose disposal. Any glucose elevation may need to be treated to ensure adequate glycemia and desirable HbA_{1C} levels. To reduce hyperglycemia, patients may be given a formula for supplemental insulin that is used to reduce the glucose back to desirable levels. This "high blood sugar bolus" may be estimated as follows: 1,500 (or 1,800 with Humalog) ÷ total daily dose of insulin (TDD) = mg/dl of glucose lowered. For example, a patient is using approximately 50 units of Humalog with an insulin pump. His "sensitivity" factor for insulin to correct hyperglycemia is $1,800 \div 50 = 36 \text{ mg/dl}$ of glucose lowered by 1 unit of insulin. Therefore if a person had a glucose of 190 and chose to correct the glucose to 100 (190 - 100 = 90 mg/)dl over goal glucose), $90 \div 36 = 2.5$ units of insulin to correct glucose to 100. This is best assessed when the patient has not eaten within four hours and there has not been significant exercise or physiologic stress. The patient, along with the physician, must determine what the target glucose level is and after experience decide whether this sensitivity factor is correct or needs to be adjusted.

Troubleshooting

It is important for patients to realize that CSII is not necessarily trouble-free and does not guarantee perfect glucose levels. Insulin pumps are machines, albeit very sophisticated ones, and thus may malfunction. Occlusions in the catheter, bent subcutaneous catheters or electronic/mechanical pump malfunction all may occur, but usually do not limit the utility of CSII. With short-acting insulins in pumps, interruption of insulin delivery can result in quicker onset of ketosis. For this reason, patients must realize the importance of checking glucoses 4+ times per day to catch rising glucose levels and treat accordingly. For levels over 250 twice in a row, patients must be instructed to check ketones, take

an injection of insulin and check/change the infusion set in order to correct the hyperglycemia, ketosis, and trouble-shoot pump problems. Pregnant patients using CSII have more stringent guidelines for day-to-day management, including more frequent infusion set changes, ketone testing, frequency of SMBG (7-8 per day), lower target glucose, and HbA_{1C} levels.

New Directions

Despite the successes of intensive insulin therapy and combination oral hypoglycemic agent therapy (type 2), suboptimal HbA₁₀ levels and labile glucoses are commonplace. To help solve some of these problems, Minimed Inc. launched the Continuous Glucose Monitoring System (CGMS) in January 2000. The glucose "sensor" is a flexible subcutaneous probe that measures interstitial fluid glucose every five minutes for three to four days. The "sensor" is connected to a monitor that stores glucose values. This monitor is used to enter fingerstick glucose readings performed by the patient, as well as event codes, such as administered insulin, ingested food, exercise, etc. After the three to four days, the monitor data is downloaded to a computer; the computer glucose graph and event codes are then printed out. This allows the diabetologist to tailor therapy (usually insulin) to the patient's glycemic trends.

Typical patterns seen with MDI or CSII:

- Insufficient meal insulin with resultant post-meal hyperglycemia.
 - Excessive basal or long-acting insulin.
 - Overcorrection of hypoglycemia.
- Overcorrection of hyperglycemia with excessive supplemental bolus and resultant hypoglycemia.

This innovation has already helped glycemic control in many patients, and is a step in the path to closing the loop with an "artificial pancreas" to provide normoglycemia.

Insulin pump therapy has revolutionized the lives of many persons worldwide, helping to make diabetes more "livable" and adaptable to each individual's lifestyle. Widespread insurance coverage allows CSII to be an option for most patients with type 1 diabetes and some patients with type 2 diabetes. Consideration of CSII should be given to type 1 and "selected" type 2 patients who meet the aforementioned criteria. To date, it remains the most physiologic mode of insulin delivery.

Loss Prevention Case of the Month

A Therapeutic Nightmare

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

Some patients pose such a complicated, time-consuming, and usually lessthan-desirable outcome that most of us would just as soon not be given the challenge. Among the most perplexing and least rewarding is a case of juvenile diabetes in a noncompliant woman who smokes two packs of cigarettes daily. Her primary care physician (PCP) says that blood sugars ranging from 350 mg/dl to 50 mg/dl represent the best levels he has been able to achieve for her. She is supposed to check her blood sugar three times a week, but admits that she is irregular about it. She has a history of hypothyroidism, for which she has been given Synthroid 25 mg daily, and is now noncompliant with this medication as well. Add to that a past history of amputation of the left great toe because of ischemic disease and a current ulcer on the left

heel that has not improved on management at home and you have the picture that this patient presents.

The physical examination revealed a blood pressure of 110/52 mm Hg, pulse 100/min, and temperature 98.3°F. There was soreness in her left heel, present for three weeks. There was thick callus on the heel, with a dime-sized ulcer that showed no drainage at the time of this initial examination. She had been applying Betadine to the ulcer. Pulses in the feet were said to be minimal. There was diminished to absent sensation in the left foot on light touch (10 gm monofilament). Blood sugar on the day on the visit was 314 mg/dl two hours after breakfast.

Her treatment consisted of a first generation cephalosporin, bed rest, no smoking, and stopping the Betadine. She was to check the blood glucose four times daily, and was instructed to notify the physician if any drainage or swelling appeared. One week later she returned to the same physician with increased soreness and in the left heel and some purulent drainage. His diagnosis was (1) infected neuropathic ulcer left heel, (2) type 1 diabetes. She was referred to a general surgeon.

Her PCP apparently left control of the diabetes in the hands of the consulting surgeon because the record does not show any further input into the case from him until very late in her illness. The history taken by the surgeon was like that of the PCP. The examination showed the necrotic ulcer of the heel, and the plan was for debridement, wet saline dressings, and no weight bearing on the heel. No mention was made in the record of the status of her circulation in the extremities. For the next four months, the surgeon did local debridement in his office and did not see any significant improvement. Five months after her initial visit she was admitted to the hospital for "wide incision and debridement of this ulcer." During this time, the medical record does not show any laboratory surveillance of the blood sugar, i.e., hemoglobin A_{1C}, random blood sugars, and there was no mention of the value of the home blood glucose determinations. She was admitted to the hospital for the procedure.

After a good informed consent, the procedure was carried out under general anesthesia. The operative report stated, "There was tissue necrosis at the base of the ulcer. I performed debridement of subcutaneous tissue, tendon, muscle, and fascia. I had to extend the incision distally. At the completion of the procedure, the tissue was clean, but I cannot say with certainty that all the tissue was viable. The prognosis is poor."

At this point, a wound center in a major medical center was consulted. The consultant at the wound care center recommended transcutaneous oximetry studies, with the possible need for arteriography to precisely delineate the arterial blood supply. Further recommendations were that she stop smoking, exercise stringent diabetic control, receive adequate nutrition, and no weight bearing. Noninvasive arterial studies showed the tibial artery and the mid-calf arteries to be 50% to 60% stenosed. The femoral and popliteal veins were noted to be patent. The impression was that there was extensive small-vessel disease, and diffuse arterioscle-

rosis without signs of arterial occlusion.

The surgeon continued to debride the area on three occasions after the initial procedure while the patient was still in the hospital. She was discharged from the hospital three weeks after admission, with the opinion of the surgeon that she would require amputation of the left lower extremity below the knee.

Two weeks after this admission, angiographic studies of the lower extremities showed total occlusion of the left external iliac artery at its origin, collateral fill of a diseased left common femoral and superficial femoral arteries, totally occluded right superficial femoral artery at its origin, reconstitution of each popliteal artery at the level of the adductor canal, and two-vessel runoff to each foot. The recommendation of the vascular surgeon was for revascularization of the left lower extremity, with aorto-bifemoral bypass, and with the participation of a plastic surgeon to attempt to save the foot.

Again with a good informed consent, the surgery was done. Placement of a skin graft on the left foot accomplished salvage of the foot.

Though eight months later she appeared to be doing well, eight months after that she required amputation of both feet. (This note is in dispute according to the remainder of the record.) The postoperative note at this time states, "She quit smoking."

She was lost to follow-up by the original treating PCP. Repeated attempts were made to get her back to her physician. His office called several times and these calls were documented. On her last visit to him, he cataloged her disability. She was living in a nursing facility at that time. Again there is no mention of the diabetic state, its treatment, or the results of tests to determine whether or not the patient was in control.

This record, which includes several physicians' care and two hospitalizations, is lacking in several places. The non-invasive vascular studies were done, according to the record, on the *right* foot and not the left which was the side of the ulceration. We believe this is a simple error as to side. The vascular surgeon had a note in the record that both feet had to be amputated, yet the last visit recorded in her medical record by her PCP seems to contradict that. It is possible that, after multiple attempts by the PCP to get her into his office and the "lost to follow-up" entry in her record, the last note by was made when he did not know what had gone on since he last saw his patient.

A little over two years after the initial visit to the PCP and the general surgeon, a lawsuit was filed charging the surgeon with negligence for not conducting vascular studies when he first began to treat the patient and before he had done the multiple debridement procedures. The lawsuit further charged negligence against the surgeon for not aggressively treating the diabetes.

There were no expert witnesses who would support the surgeon. The noncompliance of the patient, particularly with

regard to continuing smoking after multiple strong admonitions to stop the habit, was a factor. The case was settled with a compromise settlement in the low six-figure range.

Loss Prevention Comments

In this case, the surgeon was the only physician sued. The major contention against him was that he failed to determine the status of the circulation in the left leg until six months had elapsed. The expert for the plaintiff was a vascular surgeon from a nearby medical center, and, as mentioned, no experts for the defense of the surgeon could be found. Even though the medical care of this patient was open to as much, or more, criticism than the surgical care, the physician was not sued.

The surgeon should have involved the PCP in the aggressive management of the diabetes, and the record should have been full of attempts to get her to quit smoking, to strictly follow the dietary regimen of a qualified nutritionist, to monitor her blood glucose level at home and by hemoglobin A_{1C} determinations quarterly, and to see her frequently to make sure that a reasonable routine of management was being followed. Diabetes is mentioned only three times in this medical record over the span of two years. It was included in the initial history and physical. Again we see the recommendation for her to check her blood glucose four times daily when she was discharged from the hospital after the wide incision and debridement. The third time it was mentioned was late in the game by the vascular surgeon, who referred to "scrupulous" management of her disease when she went home from the hospital.

In the absence of good diabetic management, would the outcome have been any better? Even if arteriographic studies had been done when the surgeon first saw her, would that have made the difference for this patient? She did not quit smoking until the "horse was out of the barn"! There is no mention of her monitoring her diabetes at home with diet, exercise, and glucose determinations.

I believe that more than half the fault for the bad outcome in this case should have been assessed to the patient. In this state at this time, comparative negligence should have prevented this patient from any recovery. However, the attorneys representing the doctor had to weigh the possibility of a much larger jury award for this relatively young woman disabled by her disease. It is not an easy call, and settlement was elected by the attorneys and the defendant physician as the decision of choice.

Juvenile diabetes is a catastrophic disease if not scrupulously managed! All of this management cannot be done by physicians. There must a working partnership between the patient and the care givers to accomplish the optimum of management. Sometimes this is simply not possible! And it may well have not been within the ability of any team to do so in this particular case.

Department of Health Report

Public Health Strategies To Enhance Diabetes Clinical Preventive Services

Tracy F. Buck, MS, RD

Burden

Diabetes is a common, serious, and costly disease that affects over 200,000 adults in Tennessee. Mortality figures from 1997 show 4,054 deaths attributed to diabetes in Tennessee. The 1997 cost figures for diabetes in Tennessee are estimated at \$2.7 billion for direct and indirect cost. The same year's morbidity statistics show that the complications of the disease in our state are profound:

- 315 new cases of blindness
- 1,441 lower extremity amputations
- 654 new cases of end stage renal disease
- 23,583 hospitalizations due to cardiovascular disease Fortunately, such studies as the *Diabetes Control and*

Complications Trial and the United Kingdom Prospective Diabetes Study have shown that these complications of diabetes can be slowed, if not prevented, with good management by the patient and the health care team.

From the Diabetes Control and Prevention Program, Tennessee Department of Health, Nashville.

Measures of Health

Certain measures of quality diabetes care must be conducted to actively manage diabetes. The Diabetes Quality Improvement Project (DQIP) is the leading set of performance and outcome accountability measures that reflect the key components of quality diabetes care grounded in scientific evidence. These measures are not guidelines for care and do not reflect the minimal or maximal level care that should be provided to the individual patient with diabetes. The measures are indicators or tools to assess the level of care provided within a system of care for a population of patients. The DQIP process was undertaken by a coalition of public and private entities (the American Diabetes Association, Foundation for Accountability, Health Care Financing Administration, and National Committee for Quality Assurance), and was joined by the American Academy of Family Physicians, American College of Physicians, and Veterans Administration. A committee of experts in clinical diabetes developed the DQIP measure set after addressing the methodology and technical issues involved in quality diabetes care (Table 1).

TABLE 1 DQIP INDICATORS FOR DIABETES (1998)

- Hemoglobin A_{1C} (HbA_{1C}) tested; at least once per year
- Hemoglobin A_{1C} level >9.5%, indicative of poor diabetes control
- · Dilated eye exam in the past year, bi-annual risk stratification also available*
- · Lipid profile performed in the last two years
- Lipids controlled (LDL <130 mg/dl)
- Monitoring for diabetic nephropathy by annual screening for microalbuminuria; bi-annual risk stratification also available*
- · Blood pressure controlled (<140/90) during the last year**
- Annual foot examination to include an evaluation of protective sensation, vascular status, and a visual inspection for deformities/ulcers

Numerous health plans are now reporting the first six DQIP measures as part of their National Committee for Quality Assurance (NCQA) accreditation. NCQA produces and disseminates a "quality report card" of these results among purchasers and consumers of health care.

^{*} Bi-annual risk assessment is used for patients with limited risk factors.

^{**1997} National Institute of Health Report recommends blood pressure of 130/85 mm Hg

Medical Record Systems

In order to ensure that key tests and examinations are performed, the American Diabetes Association *Standards of Medical Care for Patients With Diabetes Mellitus* recommends "a complete, organized medical record system." There are many medical record systems available to assist health care providers. One such record system is the Diabetes Medical Record developed by the Tennessee Diabetes Advisory Council. This record system is explained in detail in the article entitled "Diabetes Management Tools," coauthored by Thomas DiNella, MD and Dara W. Botts, RNC, FNP, found in this issue.

In addition to "hard copy," another type of medical record system is the Diabetes Electronic Management System (DEMS). DEMS is a Microsoft Access database that has been designed to assist care providers and management to track the quality of care provided to patients with diabetes. DEMS is a unique product in that it is available free of charge. It was developed by the Washington State Diabetes Control Program in consultation with providers in the Seattle Community Diabetes Initiative. DEMS can be downloaded at www.doh.wa.gov/cfh/WSDC. It assists in gathering the necessary information to perform quality improvement efforts

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"Systems for Quality Patient Management In Today's Healthcare Environment" in the clinical setting without the additional burden of conducting chart audits.

There are currently three styles available to fit the practice style of the individual clinic. Each time a patient comes for an appointment a visit note is produced, which gives the provider a history of the previous visit, and provides space to record information from the current visit. DEMS also has the ability to graph on the visit note trends for the clinical measurements in the database for a 24-month time period. DEMS will allow the site to produce simple reports based on the quality indicators, such as those offered by DQIP.

The DEMS software is currently being utilized in four federally-funded community health centers in Tennessee. These community health centers have participated in a national initiative sponsored by the Bureau of Primary Health Care to improve the health status of underserved populations by increasing infrastructure, training, and coordination within the health centers focusing on a specific disease process. The first disease process addressed was diabetes.

For general questions related to DEMS, technical assistance with the download process, or further explanation on use, contact Tracy F. Buck, MS, RD at 615-532-4659.□



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Standards of Medical Care for Patients With **Diabetes Mellitus**

AMERICAN DIABETES ASSOCIATION

iabetes is a chronic illness that requires continuing medical care and education to prevent acute complications and to reduce the risk of long-term complications. People with diabetes should receive their treatment and care from a physician-coordinated team. Such teams include, but are not limited to, physicians, nurses, dietitians, and mental health professionals with expertise and a special interest in diabetes.

The following standards define basic medical care for people with diabetes. These standards are not intended to preclude more extensive evaluation and management of the patient by other specialists as needed.

These standards of diabetes care seek to provide:

- 1. Physicians and other health care professionals who treat people with diabetes with a means to
 - Set treatment goals
 - · Assess the quality of diabetes treatment provided
 - Identify areas where more attention or self-management training is needed
 - Define timely and necessary referral patterns to appropriate specialists
- 2. People with diabetes with a means to
 - · Assess the quality of medical care they receive
 - · Develop expectations for their role in the medical treatment
 - Compare their treatment outcomes

with standard goals

For more detailed information, refer to Skyler (Ed.): Medical Management of Type 1 Diabetes and Zimmerman (Ed.): Medical Management of Type 2 Diabetes (see BIB-LIOGRAPHY).

GENERAL PRINCIPLES - Persistent hyperglycemia is the hallmark of all forms of diabetes. Treatment aimed at lowering blood glucose to or near normal levels in all patients is mandated by the following proven benefits:

- 1. The danger of acute decompensation due to diabetic ketoacidosis (DKA) or hyperosmolar hyperglycemic nonketotic syndrome, with their accompanying morbidity and mortality, is markedly reduced.
- 2. The symptoms of blurred vision are alleviated, and the risk of polyuria, polydipsia, fatigue, weight loss with polyphagia, vaginitis, or balanitis may be decreased.
- 3. The risks of development or progression of diabetic retinopathy, nephropathy, and neuropathy are all greatly decreased. It is possible that these complications may even be prevented by early effective management.
- 4. Near normalization of blood glucose has been demonstrated to be associated with a less atherogenic lipid pro-

Achieving near normal or normal blood glucose levels in patients requires comprehensive education in self-management and, for most individuals, intensive treatment programs. Such programs include the following components according to individual patient need:

- · Appropriate frequency of self-monitoring of blood glucose (SMBG)
- Medical nutrition therapy (MNT)
- Regular exercise
- Physiologically based insulin regimens, i.e., multiple daily injections of rapidacting insulin analogs (e.g., lispro), short-acting (e.g., regular), intermediate-acting (e.g., NPH or lente), or longacting (e.g., ultralente) insulins or continuous subcutaneous insulin infusion, in type 1 and some type 2 patients
- Less-complex insulin regimens or oral glucose-lowering agents in some type 2
- Instruction in the prevention and treatment of hypoglycemia and other acute and chronic complications
- Continuing education and reinforce-
- Periodic assessment of treatment goals

To be effective, treatment programs require ongoing support from the clinical care team.

SPECIFIC GOALS OF TREATMENT

Type 1 diabetes

Setting individual patient glycemic targets should take into account the results of prospective randomized clinical trials. most notably the Diabetes Control and Complications Trial (DCCT). This trial conclusively demonstrated that in patients with type 1 diabetes the risk of development or progression of retinopathy, nephropathy, and neuropathy is reduced 50-75% by intensive treatment regimens when compared with conventional treatment regimens. These benefits were observed with an average HbA_{1c} of 7.2% in intensively treated groups of patients compared with 9.0% in conventionally treated groups of patients. The reduction in risk of these complications correlated continuously with the reduction in HbA_{1c}

The recommendations in this paper are based on the evidence reviewed in the following publication: Standards of care for diabetes (Technical Review). Diabetes Care 17:1514-1522, 1994.

Originally approved 1988. Most recent review/revision, 1999.

Abbreviations: CHD, coronary heart disease; DCCT, Diabetes Control and Complications Trial; DKA, diabetic ketoacidosis; ESRD, end-stage renal disease; GFR, glomerular filtration rate; MNT, medical nutrition therapy; SMBG, self-monitoring of blood glucose; TSH, thyroid-stimulating hormone; UKPDS, United Kingdom Prospective Diabetes Study.

Table 1—Glycemic control for people with diabetes*

	Normal	Goal	Additional action suggested
Whole blood values			
Average preprandial glucose (mg/dl)†	<100	80-120	<80/>140
Average bedtime glucose (mg/dl)†	<110	100–140	<100/>160
Plasma values			
Average preprandial glucose (mg/dl)‡	<110	90-130	<90/>150
Average bedtime glucose (mg/dl)‡	<120	110–150	<110/>180
HbA _{1c} (%)	<6	<7	>8

*The values shown in this table are by necessity generalized to the entire population of individuals with diabetes. Patients with comorbid diseases, the very young and older adults, and others with unusual conditions or circumstances may warrant different treatment goals. These values are for nonpregnant adults. "Additional action suggested" depends on individual patient circumstances. Such actions may include enhanced diabetes self-management education, comanagement with a diabetes team, referral to an endocrinologist, change in pharmacological therapy, initiation of or increase in SMBG, or more frequent contact with the patient. HbA_{1c} is referenced to a nondiabetic range of 4.0–6.0% (mean 5.0%, SD 0.5%). †Measurement of capillary blood glucose. ‡Values calibrated to plasma glucose.

produced by intensive treatment. This relationship implies that near normalization of glycemic levels may prevent complications. The nondiabetic reference range for the HbA_{1c} in the DCCT was 4.0-6.0. Because different assays can give varying glycated hemoglobin (GHb) values, it is important that laboratories only use assay methods that are certified as traceable to the DCCT HbA_{1c} reference method.

SMBG targets in the DCCT were 70–120 mg/dl (3.9–6.7 mmol/l) before meals and at bedtime and <180 mg/dl (<10.0 mmol/l) when measured 1.5–2.0 h postprandially. However, these goals were associated with a threefold increased risk of severe hypoglycemia. Therefore, it may be appropriate to increase these targets (e.g., 80–120 mg/dl [4.4–6.7 mmol/l] before meals and 100–140 mg/dl [5.6–7.8 mmol/l] at bedtime) (Table 1, top). These targets should be further adjusted upward in patients with a history of recurrent severe or unrecognized hypoglycemia.

Whole blood glucose values were provided for the SMBG targets in the DCCT. Because laboratory methods measure plasma glucose, many blood glucose monitors approved for home use and some test strips now calibrate blood glucose readings to plasma values. Plasma glucose values are 10–15% higher than whole blood glucose values, and it is crucial that people with diabetes

know whether their monitor and strips provide whole blood or plasma results. The preprandial and bedtime glucose values in the bottom of Table 1 have been modified to show plasma readings.

Individual treatment goals should take into account the patient's capacity to understand and carry out the treatment regimen, the patient's risk for severe hypoglycemia, and other patient factors that may increase risk or decrease benefit (e.g., very young or old age, end-stage renal disease (ESRD), advanced cardiovascular or cerebrovascular disease, or other coexisting diseases that will materially shorten life expectancy).

The desired outcome of glycemic control in type 1 diabetes is to lower GHb (or any equivalent measure of chronic glycemia) so as to achieve maximum prevention of complications with due regard for patient safety. To achieve these goals with intensive management, the following may be necessary:

- Frequent SMBG (at least three or four times per day)
- · Medical nutrition therapy
- Education in self-management and problem solving
- Possible hospitalization for initiation of therapy

In situations where resources are unavailable or insufficient, referral to a diabetes care team for consultation and/or coman-

agement is recommended.

Type 2 diabetes

The largest and longest study of patients with type 2 diabetes, the United Kingdom Prospective Diabetes Study (UKPDS), conclusively demonstrated that improved blood glucose control in these patients reduces the risk of developing retinopathy and nephropathy and possibly reduces neuropathy. The overall microvascular complications rate was decreased by 25% in patients receiving intensive therapy versus conventional therapy. Epidemiological analysis of the UKPDS data showed a continuous relationship between the risk of microvascular complications and glycemia, such that for every percentage point decrease in HbA_{1c} (e.g., 9 to 8%) there was a 35% reduction in the risk of microvascular complications. These results confirm in type 2 diabetes that lowering blood glucose is beneficial. The UKPDS also showed that aggressive control of blood pressure, consistent with American Diabetes Association recommendations, significantly reduced strokes, diabetes-related deaths, heart failure, microvascular complications, and visual loss.

Several observational studies, including the results of the epidemiologic analysis of UKPDS data, have shown strong and statistically significant associations between blood glucose control and the risk of cardiovascular disease morbidity and mortality. The UKPDS showed a 16% reduction (not statistically significant, P = 0.052) in the risk of combined fatal or nonfatal myocardial infarction and sudden death in the intensively treated group.

For further discussion, see the American Diabetes Association's position statement "Implications of the United Kingdom Prospective Diabetes Study."

When setting treatment goals for type 2 diabetes (Table 1), the same individual patient characteristics should be considered as for type 1 diabetes: the patient's capacity to understand and carry out the treatment regimen, the patient's risk for severe hypoglycemia, and other patient factors that may increase risk or decrease benefit (e.g., advanced age, ESRD, advanced cardiovascular or cerebrovascular disease, or other coexisting diseases that will materially shorten life expectancy).

Daily SMBG is especially important for patients treated with insulin or sulfonylureas to monitor for and prevent asymptomatic hypoglycemia. The optimal frequency of SMBG for patients with type 2

diabetes is not known, but it should be sufficient to facilitate reaching glucose goals. The role of SMBG in stable diet-treated patients with type 2 diabetes is not known.

Type 2 diabetes treatment methods should emphasize diabetes management as a multiple risk factor approach including MNT, exercise, weight reduction when indicated, and use of oral glucose-lowering agents and/or insulin, with careful attention given to cardiovascular risk factors, including hypertension, smoking, dyslipidemia, and family history. Whether treated with insulin or oral glucose-lowering agents, or a combination, goals remain those outlined in Table 1.

INITIAL VISIT

Medical history

The comprehensive medical history can uncover symptoms that will help establish the diagnosis in the patient with previously unrecognized diabetes. If the diagnosis of diabetes has already been made, the history should confirm the diagnosis, review the previous treatment, allow evaluation of the past and present degrees of glycemic control, determine the presence or absence of the chronic complications of diabetes, assist in formulating a management plan, and provide a basis for continuing care. Elements of the medical history of particular concern in patients with diabetes include the following:

- Symptoms, results of laboratory tests, and special examination results related to the diagnosis of diabetes
- Prior GHb records
- Eating patterns, nutritional status, and weight history; growth and development in children and adolescents
- Details of previous treatment programs, including nutrition and diabetes self-management education
- Current treatment of diabetes, including medications, meal plan, and results of glucose monitoring and patients' use of the data
- · Exercise history
- Frequency, severity, and cause of acute complications such as ketoacidosis and hypoglycemia
- Prior or current infections, particularly skin, foot, dental, and genitourinary infections
- Symptoms and treatment of chronic eye; kidney; nerve; genitourinary (including sexual), bladder, and gas-

- trointestinal function; heart; peripheral vascular; foot; and cerebrovascular complications associated with diabetes
- Other medications that may affect blood glucose levels
- Risk factors for atherosclerosis: smoking, hypertension, obesity, dyslipidemia, and family history
- History and treatment of other conditions, including endocrine and eating disorders
- Family history of diabetes and other endocrine disorders
- Gestational history: hyperglycemia, delivery of an infant weighing >9 lb, toxemia, stillbirth, polyhydramnios, or other complications of pregnancy
- Lifestyle, cultural, psychosocial, educational, and economic factors that might influence the management of diabetes
- · Tobacco and alcohol use

Physical examination

A physical examination should be performed during the initial evaluation. People with diabetes have a high risk of developing eye, kidney, foot, nerve, cardiac, and vascular complications. Patients with type 1 diabetes have an increased frequency of autoimmune disorders, especially thyroid disease. All individuals with poorly controlled diabetes are at increased risk for infections. Children with poorly controlled diabetes may have delayed growth and maturation. Therefore, certain aspects of the detailed physical examination require particular attention. These include the following:

- Height and weight measurement (and comparison to norms in children and adolescents)
- Sexual maturation staging (during peripubertal period)
- Blood pressure determination (with orthostatic measurements when indicated) and comparison to age-related norms
- Ophthalmoscopic examination (preferably with dilation)
- Oral examination
- Thyroid palpation
- Cardiac examination
- Abdominal examination (e.g., for hepatomegaly)
- Evaluation of pulses (by palpation and auscultation)
- Hand/finger examination

- Foot examination
- Skin examination (including insulin-injection sites)
- Neurological examination

The clinician should also be alert for signs of diseases that can cause secondary diabetes, e.g., hemochromatosis, pancreatic disease, and endocrine disorders such as acromegaly, pheochromocytoma, and Cushing's syndrome.

Laboratory evaluation

Blood glucose testing and urine ketone testing should be available in the office for immediate use as needed. In addition, each patient should undergo laboratory tests that are appropriate to the evaluation of the individual's general medical condition. Certain tests should be performed to establish the diagnosis of diabetes (see the American Diabetes Association's "Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus" for a complete discussion on this subject), determine the degree of glycemic control, and define associated complications and risk factors. These include the following:

- Fasting plasma glucose (a random plasma glucose test may be performed in an undiagnosed symptomatic patient for diagnostic purposes)
- GHb
- Fasting lipid profile: total cholesterol, HDL cholesterol, triglycerides, and LDL cholesterol
- Serum creatinine in adults; in children if proteinuria is present
- Urinalysis: glucose, ketones, protein, sediment
- Test for microalbuminuria (e.g., timed specimen or the albumin-to-creatinine ratio) in pubertal and postpubertal type 1 patients who have had diabetes for at least 5 years and in all patients with type 2 diabetes
- Urine culture if sediment is abnormal or symptoms are present
- Thyroid-stimulating hormone (TSH) in all type 1 patients
- Electrocardiogram in adults

Management plan

A complete, organized medical record system is essential to providing ongoing care of people with diabetes. The records must always be accessible to the diabetes treatment team and organized so that they not

Table 2—Components of the initial visit

- Medical history
 - A. Symptoms, laboratory results related to diagnosis
 - B. Nutritional assessment, weight history
 - C. Previous and present treatment plans
 - 1. Medications
 - 2. MNT
 - 3. Self-management training
 - 4. SMBG and use of results
 - D. Current treatment program
 - E. Exercise history
 - F. Acute complications
 - G. History of infections
 - H. Chronic diabetic complications
 - I. Medication history
 - J. Family history
 - K. CHD risk factors
 - L. Psychosocial/economic factors
 - M. Tobacco and alcohol use
- II. Physical examination
 - A. Height and weight
 - B. Blood pressure
 - C. Ophthalmoscopic examination
 - D. Thyroid palpation
 - E. Cardiac examination
 - F. Evaluation of pulses
 - G. Foot examination
 - H. Skin examination
 - I. Neurological examination
 - J. Oral examination
 - K. Sexual maturation (if peripubertal)
- III. Laboratory evaluation
 - A. Fasting plasma glucose (optional)
 - B. GHb
 - C. Fasting lipid profile
 - D. Serum creatinine
 - E. Urinalysis
 - F. Urine culture (if indicated)
 - G. TSH (type 1 patients)
 - H. Electrocardiogram (adults)
- IV. Management plan
 - A. Short- and long-term goals
 - B. Medications
 - C. Medical nutrition therapy
 - D. Lifestyle changes
 - E. Self-management education
 - F. Monitoring instructions
 - G. Annual referral to eye specialist
 - H. Specialty consultations (as indicated)
 - Agreement on continuing support/follow-up
 - J. Pneumococcal and influenza vaccines

only document what has occurred but also serve as a reminder of what should be done at appropriate intervals.

The management plan should be formulated as an individualized therapeutic alliance among the patient and family, the physician, and other members of the health care team skilled in the management of diabetes to achieve the desired level of diabetes control. Patient self-management should be emphasized. To this end, the management plan should be formulated in collaboration with the patient, and the plan should emphasize the involvement of the patient in problem solving as much as possible. A variety of strategies and techniques should be employed to provide adequate education and development of problem-solving skills in the various aspects of diabetes management.

In formulating this management plan, consideration should be given to the patient's age, school or work schedule and conditions, physical activity, eating patterns, social situation and personality, cultural factors, and presence of complications of diabetes or other medical conditions. Implementation of the management plan requires that each aspect be understood and agreed on by the patient and the care providers and that the goals and treatment plan are reasonable. The management plan should include the following:

- Statement of short- and long-term goals
- Medications (insulin, oral glucose- lowering agents, glucagon, antihypertensive and lipid-lowering agents, aspirin therapy, other endocrine drugs, and other medications)
- Individualized nutrition recommendations and instructions, preferably by a registered dietitian familiar with the components of diabetes MNT
- Recommendations for appropriate lifestyle changes (e.g., exercise, smoking cessation)
- Patient and family education for selfmanagement that is consistent with the National Standards for Diabetes Self-Management Education Programs
- Monitoring instructions: SMBG, urine ketones, and use of a record system. Frequency of SMBG should be individualized according to clinical circumstances, the form of treatment employed, and the response to treatment. Urine glucose may be considered

- as an alternative only if the patient is unable or unwilling to perform blood glucose testing or if the only goal is avoidance of symptomatic hyperglycemia.
- Annual comprehensive dilated eye and visual examinations by an ophthalmologist or optometrist for all patients of age 10 years and older who have had diabetes for 3–5 years, all patients diagnosed after age 30 years, and any patient with visual symptoms and/or abnormalities
- Consultation for podiatry services as indicated
- Consultation for specialized services as indicated
- Agreement on continuing support, follow-up, and return appointments
- Instructions on when and how to contact the physician or other members of the health care team when the patient has not been able to solve problems and when management of acute problems is required
- For women of childbearing age, discussion of contraception and emphasis on the necessity of optimal blood glucose control before conception and during pregnancy
- Dental hygiene
- Pneumococcal vaccine; influenza vaccine annually

See Table 2 for a summary of the initial visit.

CONTINUING CARE — Continuing care is essential in the management of every patient with diabetes. At each visit, the patient's progress in achieving treatment goals should be evaluated by the health care team, and problems that have occurred should be reviewed. If goals are not being met, the management plan needs to be revised and/or the goals need to be reassessed.

Visit frequency

The frequency of patient visits depends on the following:

- · Type of diabetes
- Blood glucose goals and the degree to which they are achieved
- · Changes in the treatment regimen
- Presence of complications of diabetes or other medical conditions

Patients initiating insulin therapy or having a major change in their insulin pro-

gram may need to be in contact with their health care providers as often as daily until glucose control is achieved, the risk of hypoglycemia is low, and they are competent and comfortable implementing the treatment plan. Some patients may require hospitalization for initiation or change of therapy.

Patients beginning treatment with MNT or oral glucose-lowering agents may need to be contacted as often as weekly until reasonable glucose control is achieved and they are competent to conduct the treatment program. Regular visits should be scheduled for all patients with diabetes. Patients should generally be seen at least quarterly until achievement of treatment goals. Thereafter, the frequency of visits may be decreased as long as patients continue to achieve all treatment goals. More frequent contact also may be required if patients are undergoing intensive insulin therapy, not meeting glycemic or blood pressure goals, or have evidence of progression in microvascular or macrovascular complications. Patients must be taught to recognize problems with their glucose control as indicated by their SMBG records and to promptly report concerns to the health care team to clarify and strengthen their self-management skills. They also should be taught to recognize early signs and symptoms of acute and chronic complications and to report these immediately. Severe hypoglycemic reactions requiring the assistance of another person must be reported as soon as possible.

Medical history

An interim history should be obtained at each visit and should include the following:

- Frequency, causes, and severity of hypoglycemia or hyperglycemia
- · Results of SMBG
- Adjustments by the patient of the therapeutic regimen
- Problems with adherence
- Symptoms suggesting development of the complications of diabetes
- Other medical illnesses
- · Current medications
- Psychosocial issues
- · Lifestyle changes
- · Tobacco and alcohol use

Physical examination

The routine follow-up examination should

include the following:

- Height (until maturity)
- Weight
- · Blood pressure
- Sexual maturation (in peripubertal patients)
- Funduscopy in patients at risk (referral if retinopathy detected)
- Foot examination in patients at risk

If abnormalities are identified, more frequent follow-up may be required.

Comprehensive dilated eye and visual examinations should be performed annually by an ophthalmologist or optometrist who is knowledgeable and experienced in the management of diabetic retinopathy for all patients age 10 years and older who have had diabetes for 3–5 years, all patients diagnosed after age 30, and any patient with visual symptoms and/or abnormalities. For further discussion, see the American Diabetes Association's position statement "Diabetic Retinopathy."

All individuals with diabetes should receive a thorough foot examination at least once a year to identify high-risk foot conditions. This examination should include an assesssment of protective sensation, foot structure and biomechanics, vascular status, and skin integrity. People with one or more high-risk foot conditions should be evaluated more frequently for the development of additional risk factors. People with neuropathy should have a visual inspection of their feet at every contact with a health care professional. For further discussion, see the American Diabetes Association's position statement, "Preventive Foot Care in People With Diabetes."

Laboratory evaluation

A GHb determination should be performed routinely in all patients with diabetes, first to document the degree of glycemic control at initial assessment, then as part of continuing care. Since GHb reflects mean glycemia over the preceding 2–3 months, measurement approximately every 3 months is required to determine whether a patient's metabolic control has remained continuously within the target range. Thus, regular measurements of GHb permit detection of departures from the target range in a timely fashion. For any individual patient, the frequency of GHb testing should depend on

Table 3—Category of risk based on lipoprotein levels in adults with diabetes

Risk	LDL cholesterol	HDL cholesterol*	Triglyceride
High	≥130	<35	<u>></u> \$400
Borderline	100-129	35-45	200-399
Low	<100	>45	<200

Data are given in milligrams per deciliter. *For women, HDL cholesterol values should be increased by 10 mg/dl.

the treatment regimen employed and the judgment of the clinician. In the absence of well-controlled studies that suggest a definite testing protocol, expert opinion recommends GHb testing at least twice a year in patients who are meeting treatment goals and who have stable glycemic control and more frequently (quarterly assessment) in patients whose therapy has changed or who are not meeting glycemic goals.

Low-risk, borderline, and high-risk lipid levels for adults are shown in Table 3. Adult patients with diabetes should be tested annually for lipid disorders with fasting serum cholesterol, triglyceride, HDL cholesterol, and calculated LDL cholesterol measurements. If values fall in lower-risk levels. assessment may be repeated every 2 years. Tests resulting in borderline or abnormal values should be repeated for confirmation. Tests resulting in abnormal values requiring institution of therapy should be repeated, following the National Cholesterol Education Program recommendations. Lipid values should be reevaluated following a macrovascular event.

A lipid profile should be performed on children older than 2 years after diagnosis of diabetes and when glucose control has been established. Tests resulting in borderline or abnormal values should be repeated for confirmation. If values fall within accepted risk levels, assessment should be repeated every 5 years. Tests resulting in abnormal values requiring institution of therapy should be repeated, following the National Cholesterol Education Program recommendations for children and adolescents

In the absence of previously demonstrated microalbuminuria, an annual test for the presence of microalbumin is necessary. Screening for microalbuminuria in individuals with type 1 diabetes should

Table 4—Potential components of continuing care visits

I. Contact frequency

- A. Daily for initiation of insulin or change in regimen
- B. Weekly for initiation of oral glucose-lowering agent(s) or change in regimen
- C. Routine diabetes visits
 - 1. Quarterly for patients who are not meeting goals
 - 2. Semiannually for other patients

II. Medical history

- A. Assess treatment regimen
 - 1. Frequency/severity of hypo-/hyperglycemia
 - 2. SMBG results
 - 3. Patient regimen adjustments
 - 4. Adherence problems
 - 5. Lifestyle changes
 - 6. Symptoms of complications
 - 7. Other medical illnesses
 - 8. Medications
 - 9. Psychosocial issues
 - 10. Tobacco and alcohol use

III. Physical examination

- A. Physical examination annually
- B. Dilated eye examination annually
- C. Every regular diabetes visit
 - 1. Weight
 - 2. Blood pressure
 - 3. Previous abnormalities on the physical exam
- D. Foot examination annually; more often in patients with high-risk foot conditions

IV. Laboratory evaluation

- A. GHb
 - 1. Quarterly if treatment changes or patient is not meeting goals
 - 2. Twice per year if stable
- B. Fasting plasma glucose (optional)
- C. Fasting lipid profile annually, unless low risk
- D. Microalbumin measurement annually (if indicated)

V. Evaluation of management plan

- A. Short- and long-term goals
- B. Medications
- C. Glycemia
- D. Frequency/severity of hypoglycemia
- E. SMBG results
- F. Complications
- G. Control of dyslipidemia
- H. Blood pressure
- I. Weight
- J. MNT
- K. Exercise regimen
- L. Adherence to self-management training
- M. Follow-up of referrals
- N. Psychosocial adjustment
- C. Knowledge of diabetes
- P. Self-management skills
- Q. Smoking cessation, if indicated
- R. Annual influenza vaccine

begin with puberty and after 5 years' duration of the disease. Because of the difficulty in precise dating of the onset of type 2 diabetes, such screening should begin at the time of diagnosis. Screening for microalbuminuria can be performed by three methods:

- Measurement of the albumin-to-creatinine ratio in a random, spot collection
- 24-h collection with creatinine, allowing the simultaneous measurement of creatinine clearance
- 3. Timed (e.g., 4-h or overnight) collection

The first method is often found to be the easiest in an office setting and generally provides accurate information. First-void or other morning collections are preferred because of the known diurnal variation in albumin excretion, but if this timing cannot be used, uniformity of timing for different collections in the same individual should be employed.

The role of annual urine protein dipstick testing and microalbuminuria assessment is less clear after diagnosis of microalbuminuria and institution of ACE inhibitor therapy and blood pressure control. Many experts recommend continued surveillance both to assess response to therapy and progression of disease. In addition to assessment of urinary albumin excretion, assessment of renal function is important in patients with diabetic kidney disease.

Management plan

The management plan should be reviewed at each regular visit to determine progress in meeting goals and to identify problems. This review should include the control of blood glucose levels, assessment of complications, control of blood pressure, control of dyslipidemia, nutrition assessment, frequency of hypoglycemia, adherence to all aspects of self-care, evaluation of the exercise regimen, follow-up of referrals, and psychosocial adjustment. In addition, knowledge of diabetes and self-management skills should be reassessed at least annually. Continuing education should be provided or encouraged.

See Table 4 for a summary of continuing care.

SPECIAL CONSIDERATIONS

Children and adolescents

Approximately three-quarters of all newly diagnosed cases of type 1 diabetes occur in individuals younger than 18 years. Care of this group requires integration of diabetes management with the complicated physical and emotional growth needs of children, adolescents, and their families. Diabetes care for children of this age-group should be provided by a team that can deal with these special medical, educational, nutritional, and behavioral issues

At the time of initial diagnosis, it is extremely important to establish the goals of care and to begin diabetes self-management education. A firm educational base should be provided so that the individual and family can become increasingly independent in the self-management of diabetes. Glycemic goals may need to be modified to take into account the fact that most children younger than 6 or 7 years have a form of "hypoglycemic unawareness," in that they lack the cognitive capacity to recognize and respond to hypoglycemic symptoms. Intercurrent illnesses are more frequent in young children. Sick-day management rules must be established and taught to prevent severe hyperglycemia and DKA that require hospitalization. A nutritional assessment should be performed at diagnosis, and at least annually thereafter, by an individual experienced with the nutritional needs of the growing child and the behavioral issues that have an impact on adolescent diets. Caution must be exercised to avoid overaggressive dietary manipulation in the very young. Assessment of lifestyle needs should be accompanied by possible modifications of the diabetic regimen. For example, an adolescent who requires more flexibility might be switched to a three- or four-insulin-injection program when needed.

A major issue deserving emphasis in this age-group is that of "adherence." No matter how sound the medical regimen, it can only be as good as the ability of the family and/or individual to implement it. Health care providers who care for children and adolescents, therefore, must be capable of evaluating the behavioral, emotional, and psychosocial factors that interfere with implementation and then must work with the individual and family to resolve problems that occur and/or to modify goals as appropriate.

Information should be supplied to the

school or day care setting so that school personnel are aware of the diagnosis of diabetes in the student and of the signs, symptoms, and treatment of hypoglycemia. It is desirable that blood glucose testing be performed at the school or day care setting before lunch and when signs or symptoms of abnormal blood glucose levels are present.

For further discussion, see the American Diabetes Association's position statement, "The Care of Children With Diabetes in the School and Day Care Setting."

Referral for diabetes management

For a variety of reasons (e.g., intercurrent illness, DKA, recurrent hypoglycemia), it may not be possible to provide care that meets these standards or achieves the desired goals of treatment (Table 1). In such instances, additional actions suggested may include enhanced education of diabetes self-management, comanagement with a diabetes team, or referral to an endocrinologist.

Intercurrent illness

The stress of illness frequently aggravates glycemic control and necessitates more frequent monitoring of blood glucose and urine ketones. Marked hyperglycemia requires temporary adjustment of the treatment program, and, if accompanied by ketosis, frequent interaction with the diabetes care team. The patient treated with oral glucose-lowering agents or MNT alone may temporarily require insulin. Adequate fluid and caloric intake must be assured. Infection or dehydration is more likely to necessitate hospitalization of the person with diabetes than the person without diabetes. The hospitalized patient should be treated by a physician with expertise in the management of dia-

Diabetic ketoacidosis and hyperosmolar hyperglycemic nonketotic syndrome

These conditions represent decompensation in diabetic control and require immediate treatment. Careful evaluation of the patient for associated or precipitating events must be undertaken (e.g., infection, medications, vascular events), and associated problems must be treated appropriately. Depending on the severity of the illness and available resources, treatment can be initiated in the physician's office, but it is best carried out in the emergency

room, hospital room, or intensive care unit. Because of the potential morbidity and mortality of DKA and the hyperosmolar hyperglycemic nonketotic syndrome, prompt consultation with а diabetologist/endocrinologist is recommended when the initial clinical and/or biochemical state is markedly abnormal, when the initial response to standard therapy is unsatisfactory, or when metabolic complications or cerebral edema occur. Recurrence of DKA demands a detailed psychosocial and educational evaluation by a diabetes specialist.

Severe or frequent hypoglycemia

The occurrence of severe, frequent, or unexplained episodes of hypoglycemia may be due to a number of factors such as defective counterregulation, hypoglycemic unawareness, insulin dose errors, and excessive alcohol intake. Hypoglycemia may also be a consequence of the therapeutic regimen and always requires evaluation of both the management plan and its execution by the patient. Family members and close associates of the patient who uses insulin should be taught to use glucagon.

The successful accomplishment of these goals requires more frequent patient contacts during readjustment of the treatment program and patient/family reeducation.

Pregnancy

To reduce the risk of fetal malformations and maternal and fetal complications, pregnant women and women planning to become pregnant require excellent blood glucose control. These women need to be seen frequently by a multidisciplinary team, including a diabetologist, internist or family practice physician, obstetrician, diabetes educators, including a nurse, registered dietitian, and social worker, and other specialists as necessary. In addition, these women must be trained in SMBG and may require specialized laboratory and diagnostic tests. For further discussion, see the American Diabetes Association's position statement "Preconception Care of Women with Diabetes."

Because of the need for prepregnancy planning and excellent glucose control, every pregnancy in a woman with diabetes should be planned in advance. Therefore, any diabetic woman who is not currently attempting to conceive should be informed of and offered acceptable and effective

methods of contraception.

For information on gestational diabetes mellitus, see the American Diabetes Association's position statement on this topic.

RETINOPATHY — In addition to undergoing the annual retinal examination by an ophthalmologist or optometrist who is knowledgeable and experienced in the management of diabetic retinopathy, patients with any level of macular edema, severe nonproliferative retinopathy, or any proliferative retinopathy require the prompt care of an ophthalmologist who is knowledgeable and experienced in the management of diabetic retinopathy. (For further discussion, see the American Diabetes Association's position statement "Diabetic Retinopathy.")

HYPERTENSION — Hypertension contributes to the development and progression of chronic complications of diabetes. In patients with type 1 diabetes, persistent hypertension is often a manifestation of diabetic nephropathy, as indicated by concomitant elevated levels of urinary albumin and, in later stages, by a decrease in the glomerular filtration rate (GFR). In patients with type 2 diabetes, hypertension often is part of a syndrome that includes glucose intolerance, insulin resistance, obesity, dyslipidemia, and coronary artery disease. Isolated systolic hypertension may occur with long duration of either type of diabetes and is in part due to inelasticity of atherosclerotic large vessels. Control of hypertension has been demonstrated conclusively to reduce the rate of progression of diabetic nephropathy and to reduce the complications of hypertensive nephropathy, cerebrovascular disease, and cardiovascular disease.

General principles

Lifestyle modifications should initially be employed to reduce blood pressure unless hypertension is at an urgent level. Such modifications include weight loss, exercise, reduction of dietary sodium, and limits on alcohol consumption. If lifestyle modifications do not achieve specified goals, medications should be added in a stepwise fashion until blood pressure goals are reached. Several medications in patients with albuminuria (e.g., ACE inhibitors) appear to have selective benefit in patients with diabetes. Other cardiovascular risk factors, such as smoking, inactivity, and elevated LDL cholesterol levels, should also be managed concomitantly.

Table 5—Definitions of abnormalities in albumin excretion

Category	24-h collection (mg/24 h)	Timed collection (µg/min)	Spot collection (µg/mg creatinine)
Normal	<30	<20	<30
Microalbuminuria	30-300	20-200	30-300
Clinical albuminuria	<300	>200	>300

Because of variability in urinary albumin excretion, two of three specimens collected within a 3-to 6-month period should be abnormal before considering a patient to have crossed one of these diagnostic thresholds. Exercise within 24 h, infection, fever, congestive heart failure, marked hyperglycemia, and marked hypertension may elevate urinary albumin excretion over baseline values.

Specific goals of treatment

The primary goal of therapy for adults should be to decrease blood pressure to <130/85 mmHg. In children, blood pressure should be decreased to the corresponding age-adjusted 90th percentile values.

Hypertension in adults has traditionally been defined as a systolic blood pressure ≥140 mmHg and/or a diastolic blood pressure ≥90 mmHg. Most epidemiological studies have suggested that risk due to elevated blood pressure is a continuous function, so these cutoff levels are arbitrary. In the general population, the risks for end-organ damage appear to be lowest when the systolic blood pressure is <120 mmHg and the diastolic blood pressure is <80 mmHg.

For patients with an isolated systolic hypertension of ≥180 mmHg, the goal is a blood pressure <160 mmHg. For those with systolic blood pressure of 160–179, the goal is a reduction of 20 mmHg. If these goals are achieved and well tolerated, further lowering to 140 mmHg may be appropriate. (For more detailed information, see the consensus statement "Treatment of Hypertension in Diabetes.")

NEPHROPATHY

General principles

Persistent albuminuria in the range of 30–300 mg/24 h (microalbuminuria) has been shown to be the earliest stage of diabetic nephropathy and is a significant risk marker for cardiovascular disease. Patients with microalbuminuria will likely progress to clinical albuminuria (≥300 mg/24 h) and decreasing GFR over a period of years. Once clinical albuminuria occurs, the risk for ESRD is high in type 1 diabetes and significant in type 2 diabetes.

If untreated, hypertension can hasten the progression of renal disease. Over the past several years, a number of interventions have been demonstrated to retard the initial development or rate of progression of renal disease.

Specific goals of treatment

Intensive diabetes management with the goal of achieving near normoglycemia has been proved to delay the onset of microal-buminuria, and the progression of microal-buminuria to clinical albuminuria, in patients with type 1 diabetes.

Lowering blood pressure to <130/85, by any effective means, should be the goal in hypertensive individuals. A reduction in blood pressure will also decrease the rate of progression of diabetic nephropathy.

In hypertensive patients with either type 1 or type 2 diabetes who have microalbuminuria or clinical albuminuria, treatment with ACE inhibitors has been shown to delay progression from microalbuminuria to clinical albuminuria and to slow the decline in GFR in clinical albuminuria. Because of the high proportion of patients who progress from microalbuminuria to overt nephropathy and subsequently to ESRD, the use of ACE inhibitors is recommended for all type 1 patients with microalbuminuria, even if they are normotensive. However, because of the more variable rate of progression from microalbuminuria to overt nephropathy and ESRD in patients with type 2 diabetes, the use of ACE inhibitors in normotensive type 2 diabetic patients is not as well substantiated as in normotensive type 1 diabetic patients. Therefore, treatment with ACE inhibitors in normotensive type 2 patients should be based on physician assessment. Should such a patient show progression of albuminuria or develop hypertension, then ACE inhibitors would clearly be indicated.

The albumin-to-creatinine ratio can be measured in a random urine specimen. Alternatively, measurement of urine albumin may be done on a 24-h or other timed urine collection. There is marked day-to-day variability in albumin excretion, so that at least two of three collections measured in a 3- to 6-month period should show elevated levels before a patient is designated as having microalbuminuria. Abnormalities of albumin excretion are defined in Table 5.

Assessment of the creatinine clearance should be performed by using the serum creatinine and formulas that take into account the patient's age, sex, and body size or by measuring creatinine in serum and in a timed urine specimen.

Repeat timed or overnight urine collections or measurements of albumin-to-creatinine ratios should be obtained periodically to document the effect of treatment on albumin excretion and to detect the rare case of a deleterious effect of drug therapy. If ACE inhibitors are used, serum potassium levels should also be monitored for the development of hyperkalemia, with an increased frequency of monitoring when there is a progressive decrease in GFR or in patients with hyporeninemic hypoaldosteronism.

Protein restriction to 0.8 g • kg-1 body wt · day-1 (~10% of daily calories), the current adult recommended daily allowance for protein, should be instituted with the onset of overt nephropathy. However, it has been suggested that once the GFR begins to fall, further restriction to 0.6 g . kg-1 body wt · day-1 may prove useful in slowing the decline of GFR in selected patients. On the other hand, nutritional deficiency may occur in some individuals and may be associated with muscle weakness. Protein-restricted meal plans should be designed by a registered dietitian familiar with all components of the dietary management of diabetes.

Referral to a physician experienced in the care of diabetic renal disease should be considered when the GFR has fallen to either <70 ml • min-† • 1.73 m-², when serum creatinine has increased to >2.0 mg/dl (>180 µmol/l), or when difficulties occur in management of hypertension or hyperkalemia. (For a complete discussion on the treatment of nephropathy, see the American Diabetes Association's position statement "Diabetic Nephropathy.")

CARDIOVASCULAR

DISEASE — Evidence of cardiovascular disease, such as angina, claudication, decreased pulses, vascular bruits, and electrocardiogram abnormalities, requires efforts to correct contributing risk factors (e.g., obesity, smoking, hypertension, sedentary lifestyle, dyslipidemia, poorly regulated diabetes) in addition to specific treatment of the cardiovascular problem. Daily intake of aspirin has been shown to reduce cardiovascular events in patients with diabetes. (For specific recommendations and further discussion, see the American Diabetes Association's position statement "Aspirin Therapy in Diabetes.")

Although evidence from randomized controlled studies is lacking, the American Diabetes Association Consensus Development Conference on the Diagnosis of Coronary Heart Disease in People With Diabetes has recommended that patients with an established coronary heart disease (CHD) history or who have had a prior cardiac event warrant cardiac testing for risk stratification. Further, in patients without a prior history of an event or symptoms strongly suggesting CHD, testing for CHD is warranted in patients with the following: 1) typical or atypical cardiac symptoms; 2) resting electrocardiogram suggestive of ischemia or infarction; 3) peripheral or carotid occlusive arterial disease; 4) sedentary lifestyle, age ≥35 years, and plans to begin a vigorous exercise program; and 5) in addition to diabetes, two or more cardiac risk factors (total cholesterol ≥240 mg/dl, LDL cholesterol ≥160 mg/dl, or HDL cholesterol <35 mg/dl; blood pressure >140/90 mmHg; smoking; family history of premature CHD; positive micro-/macroalbuminuria test). Cardiac testing might consist of exercise stress testing, stress perfusion imaging, stress echocardiography, or catheterization. The type of testing and need for referral to a cardiologist depend on the severity of underlying or suspected coronary artery disease. (For further discussion, see the American Diabetes Association's Consensus Statement "Diagnosis of Coronary Heart Disease in People With Diabetes.")

DYSLIPIDEMIA

General principles

Diabetes increases the risk for atherosclerotic vascular disease. This risk is greatest in people who have other known risk factors, such as dyslipidemia, hypertension, smoking, and obesity. Furthermore, in type 2 diabetes there is an additional increased risk for obesity and lipid abnormalities independent of the level of glycemic control. A common abnormal lipid pattern in such patients is an elevation of VLDL, a reduction in HDL, and an LDL fraction that contains a greater proportion of small, dense LDL particles.

Data about treatment of dyslipidemia in people with diabetes, especially in children, are limited. However, current recommendations from the National Cholesterol Education Program Adult Treatment Panel Il Report and the Expert Panel on Blood Cholesterol Levels in Children and Adolescents Report on the general management of elevated cholesterol and triglycerides have set increasingly stringent treatment targets based on the number of cardiovascular risk factors and the presence of CHD. Risk factors include age (men ≥45 years or women ≥55 years, or premature menopause without estrogen replacement therapy), diabetes mellitus, hypertension, HDL cholesterol <35 mg/dl (<0.90 mmol/l) in men and <45 mg/dl (<1.15 mmol/l) in women, smoking, microalbuminuria, and a family history of premature CHD. Because diabetes appears to eliminate the protective effect of female sex against CHD, all adults with diabetes are candidates for progressively aggressive therapy.

The following recommendations are designed to achieve two major goals as a result of treatment of dyslipidemia: 1) to reduce the risk for development of CHD in people without documented CHD and 2) to reduce the risk for progression of CHD or to cause regression in people with known CHD.

A meal plan designed both to lower glucose levels and to alter lipid patterns and regular physical activity are the cornerstones in the management of lipid disorders. The goal of MNT should focus on three major strategies: weight loss if indicated, increased physical activity, and MNT individualized for the patient.

Weight loss is achieved by reducing total caloric and fat intake and by increasing physical activity. Recommendations for increased physical activity, however, need to be made in the context of the patient's history and medical status. The recommendations should detail a frequency, duration, and intensity of exercise. Lipid-lowering pharmacological agents are indicated if there is an inadequate response to a trial of MNT, exercise, and

improved glucose control. (For a complete discussion of the treatment of lipid disorders, see the American Diabetes Association's position statement "Management of Dyslipidemia in Adults With Diabetes.")

The primary emphasis in children and adolescents with serum lipid abnormalities should be on glucose control, MNT, and exercise. Because there are important considerations regarding the efficacy and safety of drug therapy for dyslipidemia in children and adolescents, drug therapy in these individuals should be undertaken only in consultation with a physician experienced in the area of lipid disorders in children.

Specific goals of treatment

The primary goal of therapy for adult patients with diabetes is to lower LDL cholesterol to <100 mg/dl (<2.60 mmol/l).

People with diabetes who have triglyceride levels ≥1,000 mg/dl (≥11.3 mmol/l) are at risk of pancreatitis and other manifestations of the hyperchylomicronemic syndrome. These individuals need special, immediate attention to lower triglyceride levels to <400 mg/dl (<4.50 mmol/l). Further reduction to Adult Treatment Panel II goals of <200 mg/dl (<2.30 mmol/l) may be beneficial.

A secondary goal of therapy is to raise HDL cholesterol to >45 mg/dl (>1.15 mmol/l) in men and >55 mg/dl (>1.40 mmol/l) in women.

The primary goal of therapy for children with risk factors in addition to diabetes is to lower LDL cholesterol to <110 mg (<2.80 mmol/l), following the recommendations of the National Cholesterol Education Program's Report of the Expert Panel on Blood Cholesterol Levels in Children and Adolescents.

NEUROPATHY — Peripheral diabetic neuropathy may result in pain, loss of sensation, and muscle weakness. Autonomic involvement can affect gastrointestinal, cardiovascular, and genitourinary function. Each condition may require special diagnostic testing and consultation with an appropriate medical specialist. Improvement in neuropathy should be sought by increased attention to blood glucose control. Relief can be provided by various medications, alterations in MNT, or specialized procedures.

FOOT CARE — Problems involving the feet may require care by a podiatrist,

orthopedic surgeon, vascular surgeon, or rehabilitation specialist experienced in the management of people with diabetes. All patients, especially those with evidence of sensory neuropathy, peripheral vascular disease, and/or altered biomechanics must be educated about the risk and prevention of foot problems, and this education must be regularly reinforced.

Patients with a history of previous foot lesions, especially those with prior amputations, require preventive foot care and lifelong surveillance, preferably by a foot care specialist. (For a complete discussion on foot care, see the American Diabetes Association's position statement "Preventive Foot Care in People With Diabetes.")

Bibliography

- American Diabetes Association: Aspirin therapy in diabetes (Position Statement). Diabetes Care 23 (Suppl. 1):S61–S62, 2000
- American Diabetes Association: Care of children with diabetes in the school and day care setting (Position Statement). *Diabetes Care* 23 (Suppl. 1):S100–S103, 2000
- American Diabetes Association: Diabetic nephropathy (Position Statement). *Diabetes Care* 23 (Suppl. 1):S69–S72, 2000
- American Diabetes Association: Diabetic retinopathy (Position Statement). *Diabetes Care* 23 (Suppl. 1):S73–S76, 2000
- American Diabetes Association: Gestational diabetes mellitus (Position Statement). *Diabetes Care* 23 (Suppl. 1):S77–S79, 2000
- American Diabetes Association: Implications of the United Kingdom Prospective Diabetes Study (Position Statement). *Diabetes Care* 23 (Suppl. 1):S27–S31, 2000
- American Diabetes Association: Management of dyslipidemia in adults with diabetes (Position Statement). Diabetes Care 23 (Suppl. 1):S57–S60, 2000
- American Diabetes Association: Nutrition recommendations and principles for people with diabetes mellitus (Position Statement). *Diabetes Care* 23 (Suppl. 1):S43–S46, 2000
- American Diabetes Association: Preconception care of women with diabetes (Position Statement). *Diabetes Care* 23 (Suppl. 1):S65–S68, 2000
- American Diabetes Association: Preventive foot care in people with diabetes (Position Statement). *Diabetes Care* 23 (Suppl. 1):S55–S56, 2000
- American Diabetes Association: Smoking and diabetes (Position Statement). *Diabetes Care* 23 (Suppl. 1):S63–S64, 2000
- American Diabetes Association: Diagnosis of coronary heart disease in people with diabetes (Consensus Statement). Diabetes Care 21:1551–1559, 1998
- American Diabetes Association: Treatment of hypertension in diabetes (Consensus Statement). Diabetes Care 16:1394–1401, 1993
- Andersson DKG, Svardsudd K: Long-term glycemic control relates to mortality in type II diabetes. *Dia*-

- betes Care 18:1534-1543, 1995
- Cryer PE, Fisher JN, Shamoon H: Hypoglycemia (Technical Review). *Diabetes Care* 17:734–755, 1994
- Diabetes Control and Complications Trial Research Group: The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. N Engl J Med 329:977–986, 1993
- Expert Committee on the Diagnosis and Classification of Diabetes Mellitus: Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care* 23 (Suppl. 1):S4–S19, 2000
- Expert Panel on Blood Cholesterol Levels in Children and Adolescents: Treatment recommendations of the National Cholesterol Education Program Report of the Expert Panel on Blood Cholesterol Levels in Children and Adolescents. *Pediatrics* 89 (Suppl.):525–584, 1992
- Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults: Summary of the second report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel II). JAMA 269:3015–3023, 1993
- Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure: The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC VI). Bethesda, MD, National Institutes of Health, National Heart, Lung and Blood Institute, 1997 (NIH publ. no. 98-4080)
- Kasiske BL, Kalikl RSN, Ma JZ: Effect of antihypertensive therapy on the kidney in patients with diabetes: a meta-regression analysis. *Ann Intern Med* 118:129–138, 1993
- Moss SE, Klein R, Klein BEK, Meuer MS: The association of glycemia and cause-specific mortality in a diabetic population. Arch Int Med 154:2473–2479, 1994
- Ohkubo Y, Kishikawa H, Araki E, Miyata T, Isami S, Motoyosyi S, Kojima Y, Furuyoshi N, Shichiri M: Intensive insulin therapy prevents the progression of diabetic microvascular complications in Japanese patients with non-insulin-dependent diabetes mellitus: a randomized prospective 6-year study. Diabetes Res Clin Pract 28:103–117, 1995
- Skyler JS (Ed.): Medical Management of Type 1 Diabetes. 3rd ed. Alexandria, VA, American Diabetes Association, 1998
- UK Prospective Diabetes Study Group: Intensive blood glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). Lancet 352:837–853, 1998
- UK Prospective Diabetes Study Group: Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes (UKPDS 38). BMJ 317:703–713, 1998
- Uusitupa MIJ, Niskanen LK, Siitonen O, Voutilainen E, Pyörälä K: Ten year cardiovascular mortality in relation to risk factors and abnormalities in lipoprotein composition in type 2 (non-insulin-dependent) dia-

betic and non-diabetic subjects. *Diabetologia* 36:1174–1184, 1993

Weir GC, Nathan DM, Singer DE: Standards of care for diabetes (Technical Review). *Diabetes Care* 17:1514–1522, 1994

Zimmerman BR (Ed.): Medical Management of Type 2
Diabetes. 4th ed. Alexandria, VA, American Dia-

betes Association, 1998

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Suggested Reading

American Diabetes Association Clinical Practice Recommendations. Call (800) ADA ORDER

Diabetes Control and Complications Trial Research Group. N Engl J Med 329:977-986, 1993.

UK Prospective Diabetes Study Group. Lancet 1998; 352:837-865, 1998; Br Med J 317:703-720, 1998.

Data, Results, and Consequences of Major Trials with Focus on Type 2 Diabetes. Diabetes Care 2000, vol 23 (suppl 2).

Nutrition Recommendations and Principles for People With Diabetes Mellitus

AMERICAN DIABETES ASSOCIATION

edical nutrition therapy (MNT) is integral to total diabetes care and management. Although adherence to nutrition and meal planning principles is one of the most challenging aspects of diabetes care, nutrition therapy is an essential component of successful diabetes management.

Achieving nutrition-related goals requires a coordinated team effort that includes the person with diabetes. Because of the complexity of nutrition issues, it is recommended that a registered dietitian, knowledgeable and skilled in implementing diabetes MNT, be the team member providing nutrition care and education.

Effective nutrition self-management training requires an individualized approach appropriate for the personal lifestyle and diabetes management goals of the individual with diabetes. Monitoring of glucose and glycated hemoglobin, lipids, blood pressure, and renal status is essential to evaluate nutrition-related outcomes. If goals are not met, changes must be made in the overall diabetes care and management plan.

A nutrition assessment is used to determine the nutrition prescription, which is based on treatment goals, and what the individual with diabetes is able and willing to do. To facilitate adherence, sensitivity to cultural, ethnic, and financial considerations is of prime importance.

This paper reflects current scientific nutrition and diabetes knowledge. However, there are limited published data for some recommendations and, under these

circumstances, recommendations are based on clinical experiences and consensus. This position statement is based on a technical review (1), which discusses published research and issues that remain unresolved. For information on incorporating these nutrition recommendations into health care facilities, see the American Diabetes Association position statement "Translation of the Diabetes Nutrition Recommendations for Health Care Institutions" (2).

GOALS OF MEDICAL

NUTRITION THERAPY — Although the overall goal of MNT is to assist individuals with diabetes in making changes in nutrition and exercise habits leading to improved metabolic control, there are additional specific goals:

- Maintenance of as near-normal blood glucose levels as possible by balancing food intake with insulin (either endogenous or exogenous) or oral glucose-lowering medications and physical activity levels.
- 2. Achievement of optimal serum lipid levels.
- 3. Provision of adequate calories for maintaining or attaining reasonable weights for adults, normal growth and development rates in children and adolescents, increased metabolic needs during pregnancy and lactation, or recovery from catabolic illnesses. Reasonable weight is defined as the weight an individual and health care provider acknowledge as achievable and maintainable, both short- and

- long-term. This may not be the same as the traditionally defined desirable or ideal body weight.
- Prevention and treatment of the acute complications of insulin-treated diabetes such as hypoglycemia, shortterm illnesses, and exercise-related problems, and of the long-term complications of diabetes such as renal disease, autonomic neuropathy, hypertension, and cardiovascular disease (CVD).
- 5. Improvement of overall health through optimal nutrition. Dietary Guidelines for Americans (3) and the Food Guide Pyramid (4) summarize nutrient needs and nutritional guidelines for all healthy Americans. The Diabetes Food Guide Pyramid (5) is more specific for individuals with diabetes. However, all three provide guidelines that can be used by people with diabetes and their family members to make healthful food choices.

NUTRITION THERAPY AND

TYPE 1 DIABETES — A meal plan based on the individual's usual food intake should be determined and used as the basis for integrating insulin therapy into the usual eating and exercise patterns. It is recommended that individuals using insulin therapy eat at consistent times synchronized with the time-action of the insulin preparation used. Further, individuals need to monitor blood glucose levels and adjust insulin doses for the amount of food usually eaten. Intensified therapy, including multiple daily injections, continuous subcutaneous insulin infusion (CSII) using an insulin pump, and rapid-acting insulin, allows for more flexibility in the timing of meals and snacks, as well as in the amount of food eaten. Individuals on intensified insulin regimens can make adjustments in rapid- or short-acting insulin to cover the carbohydrate content of their meals and, possibly, snacks and for deviations from usual eating and exercise habits.

The recommendations in this paper are based on the evidence reviewed in the following publications: Nutrition principles for the management of diabetes and related complications (Technical Review). *Diabetes Care* 17:490–518, 1994; Protein content of the diabetic diet (Technical Review). *Diabetes Care* 17:1502–1513, 1994; Selected vitamins and minerals in diabetes (Technical Review). *Diabetes Care* 17:464–479, 1994; and Prevention and treatment of obesity: application to type 2 diabetes (Technical Review). *Diabetes Care* 20:1744–1766, 1997.

Originally approved October 1986. Most recent review/revision, 1998. Abbreviations: ADI, acceptable daily intake; CSII, continuous subcutal

Abbreviations: ADI, acceptable daily intake; CSII, continuous subcutaneous insulin infusion; CVD, cardiovascular disease; FDA, Food and Drug Administration; GFR, glomerular filtration rate; MNT, medical nutrition therapy; NCEP, National Cholesterol Education Program.

NUTRITION THERAPY AND

TYPE 2 DIABETES - Primary MNT goals for individuals with type 2 diabetes are to achieve and maintain glucose, lipid, and blood pressure goals. Hypocaloric diets and weight loss usually improve short-term alvcemic levels and have the potential to improve long-term metabolic control. However, traditional dietary strategies, and even very-low-calorie diets, have usually not been effective in achieving long-term weight loss. As research continues to elucidate why weight loss and maintenance is difficult for many people, the emphasis for individuals with type 2 diabetes needs to expand beyond weight loss to achieving and maintaining near-normal blood glucose levels. Several additional strategies can be implemented; however, there is no one proven strategy or method that can be uniformly recommended.

A moderate caloric restriction (250–500 calories less than average daily intake as calculated from a food history) and a nutritionally adequate meal plan with a reduction of total fat, especially saturated fat, accompanied by an increase in physical activity should be recommended. A hypocaloric diet (independent of weight loss) is associated with increased sensitivity to insulin and improvement in blood glucose levels. Moderate weight loss (5–9 kg [10–20 lb]), irrespective of starting weight, has been shown to reduce hyperglycemia, dyslipidemia, and hypertension.

Spacing of meals (spreading nutrient intake, particularly carbohydrate, throughout the day) is another strategy that can be adopted. Regular exercise and learning new behaviors and attitudes can help facilitate long-term lifestyle changes. However, if individuals with diabetes have made all the lifestyle changes they are able to make and metabolic control has not improved, an oral glucose-lowering agent and/or insulin may need to be added to MNT.

Many individuals with refractory obesity may have limited success with the above strategies. As new pharmacological agents (for people with BMI ≥27 kg/m² with other health risks or problems, e.g., diabetes, or >30 kg/m² without other health risks or problems) become available, they may prove to be effective. Gastric reduction surgery is available for people with a BMI >35 kg/m². Studies on the long-term efficacy and safety of these methods are, however, needed.

PROTEIN — There are limited scientific data upon which to establish firm nutritional recommendations for protein intake for individuals with diabetes. At the present time, there is insufficient evidence to support protein intakes either higher or lower than average protein intake for the general population. For people with diabetes, this translates into ~10–20% of daily caloric intake from protein. Dietary protein can be derived from both animal and vegetable sources.

With the onset of overt nephropathy, lower intakes of protein should be considered. Several small studies in humans with diabetic nephropathy have shown that a prescribed protein-restricted diet of 0.6 g • kg-1 • day-1 (subjects actually only achieved a restriction of 0.7 g • kg-1 • day-1) retards the rate of fall of glomerular filtration rate (GFR) modestly. However, the recent Modified Diet in Renal Disease Study, in which only 3% of the patients had type 2 diabetes and none had type 1 diabetes, failed to show a clear benefit of protein restriction (6).

At this point in time, the general consensus is to prescribe a protein intake of approximately the adult Recommended Dietary Allowance (RDA) of 0.8 g • kg-¹ • day-¹ (~10% of daily calories) in the patient with overt nephropathy. However, it has been suggested that once the GFR begins to fall, further restriction to 0.6 g • kg-¹ • day-¹ may prove useful in slowing the decline of GFR in selected patients. On the other hand, nutrition deficiency may occur in some individuals and may be associated with muscle weakness.

Protein-restricted meal plans should be designed by a registered dietitian familiar with all components of MNT for diabetes. For information on nephropathy, see the American Diabetes Association position statement "Diabetic Nephropathy" (7).

TOTAL FAT — If dietary protein contributes 10–20% of the total caloric content of the diet, then 80–90% of calories remain to be distributed between dietary fat and carbohydrate. Less than 10% of these calories should be from saturated fats and ≥10% of calories from polyunsaturated fats, leaving 60–70% of the total calories from monounsaturated fats and carbohydrates. The distribution of calories from fat and carbohydrate can vary and can be individualized based on the nutrition assessment and treatment goals.

The recommended percentage of

calories from fat is dependent on identified lipid problems and treatment goals for glucose, lipids, and weight. People who are at a healthy weight and have normal lipid levels are encouraged to follow the recommendations of the National Cholesterol Education Program (NCEP) (8,9). The NCEP recommends that all individuals over 2 years limit fat intake to <30% of total calories with saturated fat restricted to <10% of total calories. Polyunsaturated fat intake should be <10% of calories with monounsaturated fat in the range of 10-15% of calories. If LDL cholesterol is the primary concern, or if levels are elevated, further reduction of saturated fat to 7% of total calories and dietary cholesterol to <200 mg/day (NCEP Step II diet) is recommended. Polyunsaturated fats of the omega-3 series are provided naturally in fish and other seafood, and the intake of these foods need not be curtailed in people with diabetes.

If obesity and weight loss are the primary concerns, a reduction in dietary fat should be considered. Although foods with fat replacers have the potential to help people with diabetes reduce total fat and saturated fat intake, individuals must learn how to incorporate these foods into their food/meal plan. Additional research is needed to assess the impact of fat replacers on the total fat and caloric content of the diet. For more information on fat replacers, see the American Diabetes Association position statement "Role of Fat Replacers in Diabetes Medical Nutrition Therapy" (10).

If triglycerides and very-low-density lipoprotein cholesterol are the primary concerns, one approach that may be tried is a moderate increase in monounsaturated fat intake with <10% of the calories from saturated fats and a more moderate carbohydrate intake. However, in obese individuals, care should be taken to ensure that increased fat does not perpetuate or aggravate the obesity. In addition, individuals with triglyceride levels ≥1,000 mg/dl (≥11.3 mmol/l) require reduction of all types of dietary fat (<10% of calories) in addition to pharmacologic treatment to reduce the risk of pancreatitis.

Monitoring of glycemic and lipid status and body weight, with any dietary fat modifications, is essential to assess the effectiveness of the nutrition recommendations.

SATURATED FAT AND
CHOLESTEROL — A reduction in sat-

urated fat and cholesterol consumption is an important goal to reduce the risk of CVD. Diabetes is a strong independent risk factor for CVD, over and above the adverse effects of an elevated serum cholesterol. Therefore, <10% of the daily calories should be from saturated fats, and dietary cholesterol should be limited to ≥300 mg daily. However, even these recommendations must be incorporated with consideration of an individual's cultural and ethnic background.

CARBOHYDRATE AND

SWEETENERS — The percent of calories from carbohydrate will also vary and is individualized based on the individual's eating habits and glucose and lipid goals. For most of this century, the most widely held belief about the nutritional treatment of diabetes has been that simple sugars should be avoided and replaced with starches. This belief appears to be based on the assumption that sugars are more rapidly digested and absorbed than are starches and thereby aggravate hyperglycemia to a greater degree. There is, however, very little scientific evidence that supports this assumption. Fruits and milk have been shown to have a lower glycemic response than most starches, and sucrose produces a glycemic response similar to that of bread, rice, and potatoes. Although various starches do have different glycemic responses, from a clinical perspective, first priority should be given to the total amount of carbohydrate consumed rather than the source of the carbohydrate.

Sucrose

Scientific evidence has shown that the use of sucrose as part of the total carbohydrate content of the diet does not impair blood glucose control in individuals with type 1 or type 2 diabetes. Sucrose and sucrose-containing foods must be substituted for other carbohydrates gram for gram and not simply added to the meal plan. In making such substitutions, the nutrient content of concentrated sweets and sucrose-containing foods, as well as the presence of other nutrients frequently ingested with sucrose, such as fat, must be considered.

Fructose

Dietary fructose produces a smaller rise in plasma glucose than isocaloric amounts of sucrose and most starches. In that regard, fructose may offer an advantage as a sweetening agent in the diabetic diet. However, because of the potential adverse effects of large amounts of fructose (i.e., double the usual intake [20% of calories]) on serum cholesterol and LDL cholesterol, fructose may have no overall advantage as a sweetening agent in the diabetic diet. Although people with dyslipidemia should avoid consuming large amounts of fructose, there is no reason to recommend that people with diabetes avoid consumption of fruits and vegetables, in which fructose occurs naturally, or moderate consumption of fructose-sweetened foods.

Other nutritive sweeteners

Nutritive sweeteners other than sucrose and fructose include corn sweeteners, such as corn syrup, fruit juice or fruit juice concentrate, honey, molasses, dextrose, and maltose. There is no evidence that foods sweetened with these sweeteners have any significant advantage or disadvantage over foods sweetened with sucrose in decreasing total calories or carbohydrate content of the diet or in improving overall diabetes control.

Sorbitol, mannitol, and xylitol are common sugar alcohols (polyols) that produce a lower glycemic response than sucrose other carbohydrates. hydrolysates are formed by the partial hydrolysis and hydrogenation of edible starches, thus becoming polyols. Although the exact caloric value of sugar alcohols vary, they average ~2 kcal/g compared with the 4 kcal/g from other carbohydrates. Evidence is limited to suggest that this can be expected to contribute to a major reduction in total calories or in the total carbohydrate content of the daily diet. Furthermore, excessive amounts of polyols may have a laxative effect.

The calories and carbohydrate content from all nutritive sweeteners must be accounted for in the meal plan and have the potential to affect blood glucose levels.

Nonnutritive sweeteners

Saccharin, aspartame, acesulfame K, and sucralose are approved for use in the U.S. by the Food and Drug Administration (FDA). For all food additives, including nonnutritive sweeteners, the FDA determines an acceptable daily intake (ADI), which is defined as the amount of a food additive that can be safely consumed on a daily basis over a person's lifetime without any adverse effects and includes a 100-fold safety factor. Actual intake by individu-

als with diabetes for all nonnutritive sweeteners is well below the ADI.

FIBER — Dietary fiber may be helpful in the treatment or prevention of constipation and several gastrointestinal disorders, including colon cancer, and provides satiety value to the diet, and large amounts of soluble fiber have a beneficial effect on serum lipids. People with diabetes would be as amenable to these effects as those without diabetes. Although selected soluble fibers are capable of inhibiting absorption of glucose from the small intestine, in the amounts likely to be consumed from foods, the clinical significance of this effect on blood glucose levels is probably insignificant. Therefore, recommendations for people with diabetes are the same as for the general population related to fiber and a healthful diet. Daily consumption of a diet containing 20-35 g dietary fiber from both soluble and insoluble fibers from a wide variety of food sources is recommended.

SODIUM — People differ in their sensitivity to sodium and its effect on blood pressure. Because it is impractical to assess individual sodium sensitivity, intake recommendations for people with diabetes are the same as for the general population. Some health authorities recommend no more than 3,000 mg/day of sodium for the general population, while other authorities recommend no more than 2,400 mg/day. For people with mild to moderate hypertension, ≤2,400 mg/day of sodium is recommended. For people with hypertension and nephropathy, ≤2,000 mg/day of sodium is recommended.

ALCOHOL — The same precautions regarding the use of alcohol that apply to the general public also apply to people with diabetes. *Dietary Guidelines for Americans* (2) recommends no more than two drinks per day for men and no more than one drink per day for women.

The effect of alcohol on blood glucose levels is dependent not only on the amount of alcohol ingested but also on the relationship to food intake. Alcohol is not metabolized to glucose and inhibits gluconeogenesis; therefore, if alcohol is consumed without food by people treated with insulin or oral glucose—lowering agents, hypoglycemia can result. Hypoglycemia can occur at blood alcohol levels which do not exceed mild intoxication.

If used in moderation and with food,

Table 1—Historical perspective of nutrition recommendations

	Distribution of calories (%)				
Year	Carbohydrate ⁻	Protein	Fat		
Before 1921		Starvation diets			
1921	20	10	70		
1950	40	20	40		
1971	45	20	35		
1986	≤60	12–20	<30		
1994	*	10–20	*†		

^{*}Based on nutritional assessment and treatment goals. †Less than 10% of calories from saturated fats.

however, blood glucose levels are not affected by the ingestion of alcohol when diabetes is well controlled. For individuals using insulin, two or less alcoholic beverages (1 alcoholic beverage = 12 oz beer, 5 oz wine, or 1 1/2 oz distilled spirits) can be ingested with and in addition to the regular meal plan. No food should be omitted because of the possibility of alcoholinduced hypoglycemia. When calories from alcohol need to be calculated as part of the total caloric intake, alcohol is best substituted for fat exchanges (1 alcoholic beverage = 2 fat exchanges) or fat calories.

Abstention from alcohol should be advised for people with a history of alcohol abuse or during pregnancy. Reduction of or abstention from alcohol intake is advisable for diabetic individuals with other medical problems such as pancreatitis, dyslipidemia, especially elevated triglycerides, or neuropathy.

MICRONUTRIENTS:

VITAMINS AND MINERALS — When dietary intake is adequate, there is generally no need for additional vitamin and mineral supplementation for the majority of people with diabetes. Although there are theoretical reasons to supplement with antioxidants, there is little confirmatory evidence at present that such therapy has any benefits.

The only known circumstance in which chromium replacement has any beneficial effect on glycemic control is for people who are chromium deficient as a result of long-term chromium-deficient parenteral nutrition. However, it appears that most people with diabetes are not chromium deficient, and, therefore, chromium supplementation has no known benefit.

Similarly, although magnesium deficiency may play a role in insulin resistance, carbohydrate intolerance, and hypertension, the available data suggest that routine evaluation of serum magnesium levels is recommended only in patients at high risk for magnesium deficiency. Levels of magnesium should be repleted only if hypomagnesium can be demonstrated.

Potassium loss may be sufficient to warrant dietary supplementation in patients taking diuretics. Hyperkalemia sufficient to warrant dietary potassium restriction may occur in patients with renal insufficiency or hyporeninemic hypoaldosteronism or in patients taking angiotensin- converting enzyme inhibitors.

PREGNANCY — Nutrition recommendations for women with preexisting and gestational diabetes should be based on a nutrition assessment. Monitoring blood glucose levels, urine ketones, appetite, and weight gain can be a guide to developing and evaluating an appropriate individualized nutrition prescription and meal plan and to making adjustments to the meal plan throughout pregnancy to ensure desired outcomes.

SUMMARY — A historical perspective of nutrition recommendations is provided in Table 1. Today there is no one "diabetic" or "ADA" diet. The recommended diet can only be defined as a nutrition prescription based on assessment and treatment goals and outcomes.

MNT for people with diabetes should be individualized, with consideration given to usual eating habits and other lifestyle factors. Nutrition recommendations are then developed and implemented to meet treatment goals and desired outcomes. Monitoring metabolic parameters, including blood glucose levels, glycated hemoglobin, lipids, blood pressure, body weight, and renal function, if appropriate, as well as quality of life, is crucial to ensure successful outcomes. Furthermore, it is essential that ongoing nutrition self-management education and care be provided for individuals with diabetes.

References

- Franz MJ, Horton ES, Bantle JP, Beebe CA, Brunzell JD, Coulston AM, Henry RR, Hoogwerf BJ, Stacpoole PW: Nutrition principles for the management of diabetes and related complications (Technical Review). *Diabetes Care* 17:490–518, 1994
- American Diabetes Association: Translation of the diabetes nutrition recommendations for health care institutions (Position Statement). *Diabetes Care* 23 (Suppl. 1):S47–S49, 2000
- U.S. Department of Agriculture, U.S. Department of Health and Human Services: Nutrition and Your Health: Dietary Guidelines for Americans. 4th ed. Hyattsville, MD, USDA's Human Nutrition Information Service, 1995
- U.S. Department of Agriculture: The Food Guide Pyramid. Hyattsville, MD, USDA's Human Nutrition Information Service, 1992
- American Diabetes Association and The American Dietetic Association: The First Step in Diabetes Meal Planning. Alexandria, VA, American Diabetes Association, 1995
- Levey AS, Adler S, Caggiula AW, England BK, Greene T, Hunsicker LG, Kusek JW, Rogers NL, Teschan PE: Effects of dietary protein restriction on the progression of advanced renal disease in the Modification of Diet in Renal Disease Study. Am J Kidney Dis 27:652–663, 1996
- American Diabetes Association: Diabetic nephropathy (Position Statement). Diabetes Care 23 (Suppl. 1):S69–S72, 2000
- Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults: Summary of the second report of the National Cholesterol Education Program (NCEP) expert panel on detection, evaluation, and treatment of high blood cholesterol in adults (Adult Treatment Panel II). JAMA 269:3015–3023, 1993
- Expert Panel on Blood Cholesterol Levels in Children and Adolescents: Treatment recommendations of the National Cholesterol Education Program Report of the Expert Panel on Blood Cholesterol Levels in Children and Adolescents. *Pediatrics* 89 (Suppl.):525–584, 1992
- American Diabetes Association: Role of fat replacers in diabetes medical nutrition therapy (Position Statement). *Diabetes Care* 23 (Suppl. 1):S96—S97, 2000

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News and Views

TMA Alliance Report

Legislative Activities

What an exciting time to be the TMAA Legislative Chairman! As you know, this is an election year and Congress is involved in health care more than ever. This summer, our legislators voted on a bill to reform antitrust laws. If this passes the Senate, it will allow physicians to collectively negotiate with health plans. There is also a bill that has been stalled for months in a conference committee that would define and protect patients' rights. This is a crucial time for physicians and their families. It is important that you get out and vote. Let your senators and representatives know that you get out and vote. Let your senators and representatives know that you demand support for laws that protect patients and the patient-physician relationship.

There are many resources available that will help you stay informed in the area of legislation. Newsline is the bimonthly newsletter that includes information about organized medicine's legislative activities; American Medical News is the American Medical Association's weekly health care newspaper; Legislative Advocacy: A Guide for all Alliance Members outlines programming ideas you can use to educate your members and get them involved. Lastly, there is the AMA Grassroots Hotline (800-833-6354, enter "AMA ALLIANCE" – 262 255 426 23 – for your ME number) and the AMA in Washington Web site (www.ama-assn.org/grassroots). These are all great ways for you to stay informed and to obtain talking points and background information on federal legislation.

Remember, to vote you must be registered 30 days before Election Day. If you are not already registered, register for the AMA Grassroots Network. You will appreciate the federal alerts, and if you have e-mail, you will get a weekly summary of events in Washington. Get to know your senators and representatives and vote for the ones who will help improve health care. Know that your state alliance will assist you in any way we can. Together we can serve medicine to activate, inform, and educate others.

Connie Stohler
TMAA Legislative Chairman

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Lawrence County Medical Society Belinda K. Bart, MD, Lawrenceburg

Nashville Academy of Medicine Brad A. Greenbaum, MD, Nashville

Roane-Anderson County Medical Society Keith E. Kelly, MD, Oak Ridge Stephen M. Teague, MD, Oak Ridge

Sullivan County Medical Society Sebastian L. Ornopia, MD, Bristol Sumner County Medical Society Kenneth R. Case, MD, Gallatin

Tipton County Medical Society
Thomas J. Caruthers Jr, MD, Covington
Buffy J. Cook, MD, Brighton

Washington-Unicoi-Johnson County Medical Association Jeffrey W. Schoondyke, MD, Johnson City

In Memoriam

Denis O. Bradburn, MD, age 46. Died July 17, 2000. Graduate of University of Tennessee College of Medicine. Member of Stones River Academy of Medicine.

James K. Kaufman, MD, age 87. Died August 12, 2000. Graduate of Vanderbilt University School of Medicine. Member of Stones River Academy of Medicine.

Joseph V. Lavecchia, MD, age 81. Died August 9, 2000. Graduate of Louisiana State University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

Corrie Blair McPeake, MD, age 84. Died August 14, 2000. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

William Fitzhugh Murrah Jr, MD, age 80. Died September 3, 2000. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

Eugene Stuart Wolcott, DDS, MD, age 72. Died September 1, 2000. Graduate of University of Tennessee College of Medicine. Member of Marshall County Medical Society.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during August, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Lewis J. Bellardo, MD, Nashville
Jeff R. Farrow, MD, Johnson City
Richard W. Garman, MD, Nashville
David H. Horowitz, MD, Nashville
Frederick T. Horton Jr., MD, Nashville
Wesley E. Jones, MD, Memphis
David V. MacNaughton Jr., MD, Chattanooga
H. Clay Newsome III, MD, Nashville
Stephen C. Thompson, MD, Murfreesboro
J. Lynn Williams, MD, Dechard

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

Vanderbilt University Medical Center

Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/ PRA Category 1 credit is provided for each hour of participation. Physicians must be licensed and be in active practice with evidence of liability coverage.

Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Dec 1	Improved Treatment of Common Neurological Condi-
	tions
D 1 2	26th A Lui-b Dist-Ob-t-t-i Gi

26th Annual High-Risk Obstetrics Seminar Dec 1-2

Dec 10-14 American College of Neuropsychopharmacology, 39th Annual Meeting—San Juan, Puerto Rico

December Maintaining Proper Boundaries

Feb 2-10 23rd Annual Sisson International Head and Neck Workshop—Vail, Colo

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

Continuing Education Schedule

Memphis

Dec 1-3 Clinical Update in Ophthalmology

Chattanooga

	Chananooga
Dec 2	10th Care of the Aging Patient Symposium
Dec 14	Medical Knowledge Self-Assessment Program
	(MKSAAP) Review: Fall-Winter 2000-2001(Part A)
Feb 8-13	International 14th Annual Clinical Medicine Update—
	Maui, Hawaii
Feb 11-15	International 2nd Annual Emergency Medicine Sym-
	posium—Maui, Hawaii

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.

Meharry Medical College

Individualized Postgraduate Traineeships

For Practitioners

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individual-

ized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

Fee: \$15 per hour of educational experience (the days need not be consecutive). If you are unable to attend the scheduled activity and notify us by 8:30 AM of the appointed day, we will refund all but \$50 of the fee. Credit: Meharry is accredited by the Accreditation Council for Continuing Medical Education to sponsor CME for physicians. Also meets the criteria for AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. Application: For information contact Office of College Relations & Lifelong Learning, Meharry Medical College, Nashville, TN 37208, Tel. (615) 327-6235.

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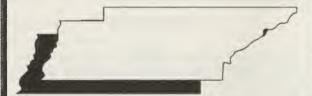
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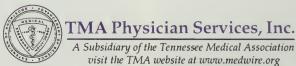
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Editor
John B. Thomison, MD
Assistant Editor
Robert W. Ikard, MD

Managing Editor Jean Wishnick King Business Manager

Donald H. Alexander Sr. V.P.—Communications

Russ Miller
Advertising Representative

Jean Wishnick King Call (615) 385-2100 or e-mail jeanw@tma.medwire.org

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President's Comments



Barrett F. Rosen, MD

Priorities

As the holiday season approaches, it may be a good time to reevaluate some priorities. There are so many different forces pulling at us that we often don't know where to go next. With reimbursement decreasing, we feel a need to increase our work hours to try to "make up the difference," but this often means that some other part of our lives must suffer. The practice of medicine has certainly become more complicated in the amount of paper work that is required. We must make sure that all "i's are dotted and t's crossed" if we are to be paid even the minimal amounts we are due. It is impossible to keep up with all of the steps without spending more and more time at it.

When we start to try to balance our lives it is easy to say "I don't have time." While on one level this is true, what we are actually saying is "I have chosen to use my time in other ways." If we can keep this in mind, then as we make such priority decisions they hopefully will make more sense. Especially at this time of the year, we need to remember that there are people outside of our professional lives who may need even more of our time and attention. Medical families have a lot of potential problems that are often ignored until too late. When we allocate our time, it is important to remember that our families often represent our only true support system and *must not* be ignored.

As members of the Tennessee Medical Association, we are fortunate to have an organization that is there to safeguard us collectively from outside influences that we could not combat individually. Some of the routine tasks of even a small office can be assisted by our TMA. Don't hesitate to ask for help. Investing a few minutes to discover all that your professional organization offers will pay you back many times over.

We are very fortunate to belong to an organization that has truly been a national leader in helping physicians who have problems coping with the stresses of practice and life as well. The Tennessee Medical Foundation, through its Physicians Health Program, stands ready to help. If you know of a colleague (or even yourself) in need of help, please call immediately! Call Dr. Gary Olbrich, the plan's medical director, for confidential assistance at (615) 665-2516.

I would like to take this opportunity to wish all of you a happy, healthy, and prosperous year ahead.

Rand Mosenne &

Editorials



John B. Thomison, MD

Who Cares?

I always have a problem with this time of the year. It's not exactly a unique problem, since each month I have to consider that if my subject is to be a specific event, that event will not happen for two months or thereabouts from my writing about it. That can sometimes get quite frustrating, and never more so that in mid-October, when I have to be writing about Christmas with the leaves still on the trees and usually not even beginning to show color. Not only that, but there are some noteworthy occasions between now and Christmas, such as Halloween (though when I mention that I usually do so only to condemn it) and Thanksgiving.

And Veterans' Day.

Did you ever notice the shenanigans that go on about the funding of the public school systems? Everybody, and I mean *everybody*, speaks eloquently in favor of adequately funding the schools. But try to float a bond issue for the schools. Nashville—or maybe it was the state (I forget which, but it doesn't matter, because it wouldn't make any difference in the outcome) passed an increase in the sales tax earmarked specifically for schools. Do you think the money went there? With a shortage in the budget? Be serious. And who gets the pay-raises? Not the teachers. The people with whom the children spend the largest part of their waking hours are expected to subsist on tips. So except for a few dedicated souls (and we should prostrate ourselves before them) who are willing to accept that sort of treatment, the good teachers wind up in the private schools. And why not? They too have families to support.

So who is it cares about education? Well, some of the parents do, sometimes, when they happen to think about it, which is usually when one of those overpaid teachers with a monstrous class has shorted their little darling, or maybe has sent their little monster to the principal's office.

But who is it that *really* care about the schools? The teachers, of course.

I need to say right here that 80 years, some 60-odd of them consciously, of watching often irresponsible people function often marginally in highly responsible and often sensitive positions has made me if not exactly cynical, then at least close. Not always, and not about everything, but quite often about a lot of things. I am, I hope you realize, dealing here in generalities, and if there are individuals among you out there who feel I'm treading on your toes, well, I might or might not be. I'll let you decide. Maybe if you think I am, they need treading upon. If not, consider your pardon begged. At my age and in my situation, I'm not going to lose any sleep over it either way.

What started this particular diatribe was really a who. It was a fellow veteran of the Second World War calling for the American Legion asking for money for something, I forget what. It doesn't matter, because I sent it to them. There are lots of people with some sort of personal agenda sending me requests for money every day. Most of them go unopened into the circular file, and those who have the temerity to phone me during dinner I dispose of with a suggestion that they write me a letter (which, they have by then doubtless guessed, will be going where in fact it will.) But I always honor requests from one of the established veterans' organizations.

Who cares about veterans? Veterans do. I have had a hard time finding anyone else—oh, yes—politicians do, but only when they are running for office. And of course, there are their families, and most of the doctors and nurses who care for them when they need it, which more and more do now. Except that the pool is shrinking at a startlingly rapid rate. My petitioning

comrade-in-arms quoted me some figures that were themselves rather startling until I thought about it. During The War (that's "our" war, not as in "Fo' de Wawah") there were 18 million of our men under arms. I am unclear as to how many remain alive, but I think he said four million. What I do remember—and I have checked this figure—is that we are dying at the rate now of 1,650 a day.

Whenever the members of the Congress of the United States have voted themselves a raise, the funds available to the Veterans Administration have dwindled accordingly. Those funds had been appropriated to care for those maimed in our service, to keep those of us who weren't maimed from being that or worse. Exclusive of the medical care, those in our prisons fare much better than veterans in the VA hospitals. Whereas prisoners have TV sets, for instance, a single TV set is generally available for an entire floor in the VA hospitals unless sets are furnished by the patients' families. I understand conditions vary among hospitals, but federal funding for our veterans, to whom we owe everything, is and throughout our history has been meager indeed.

After all, they haven't done anything for us lately.

So who does care? Well, God does, for one. That is of course not uncontroversial, and there are alternatives, one of which is that God couldn't care because God does not exist. Or that if He does exist it is as an impersonal force that does not care. There is a third alternative that is fairly widely held among the religious of whatever faith. It is one that I personally find even more egregious than God's nonexistence. It is that God cares for me and my House, but never for you and yours. That is, and throughout history has been, as much as the love of money the root of all evil, because so often the two go hand in hand. It is true now in Palestine (you should excuse the expression—it's the way I grew up, and I refuse to change just to be politically correct, particularly when I don't know what is politically correct) and in the Balkans, in various parts of Africa, and so on and on.

It is the message of Christmas that God really does care. But even more than that, the message is that not only does He care, He cares just as much about and for those who care nothing at all for Him as He does for those who love Him with their entire being, and have dedicated their all to Him. He has given to all of us all the world and everything in it—as His stewards and not exploiters of it, and therefore not to be either squandered or hoarded, which will doubtless be news to a horde of nominally Christian businessmen and politicians, who even as we speak are plundering the earth and seas.

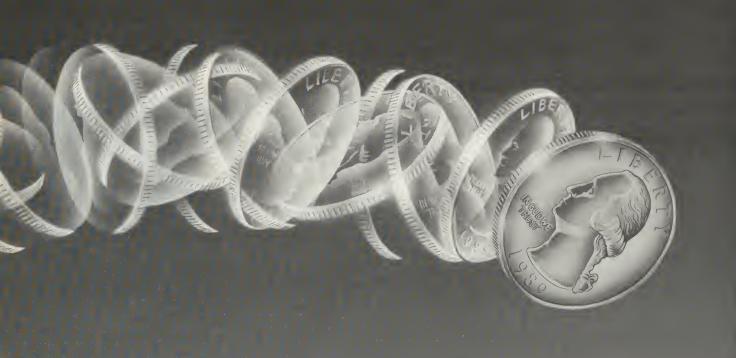
But most wonderful of all, He who owns it all has dedicated all of Himself to all of us. To *all* of us. *That* is the Good News of Christmas.

HELP FOR PHYSICIANS

The Tennessee Medical Foundation Physicians Health Peer Review Committee assists doctors who are suffering from the disease of chemical dependence, or mental or emotional illness, or both, including certain behaviors problematic for physicians. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease or illness is detected early. The Committee urges family, friends, and associates to avoid misguided sympathy which enables a physician's impaired condition to deteriorate.

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Life After Practice Management: Doctors Return to More Traditional Business Styles

Leigh Ann Roman

An innovation that was supposed to improve the business end of physician practices is costing a lot of doctors a pretty penny these days.

The innovation is called physician practice management (PPM); under this concept the assets of countless

physician practices were sold in recent years to PPM companies. In return, the doctors received stock and some cash, and then paid a management fee for the company to provide all business functions and management and allow the doctors to simply practice medicine. In many cases, the doctors have become dissatisfied with the arrangements and are buying their practices back.

"The basic theory behind the origination of the PPM companies was to obtain a revenue stream and take that revenue stream to Wall Street and take the companies public and obtain large multiples of earnings in the form of capital publicly traded stock," says Nelson Fleet, a non-equity partner in the Memphis CPA firm Scott & Pholman PC.

The theory did not work. PPM companies are barely on the radar screen of the stock market; stock for companies that remain publicly traded go for bargain-basement prices.

Reasons for the failure vary, depending on who is offering his opinion. Some say the profit margins are too thin in primary care practice management; others cite the autonomy of physicians and the need for a more individualistic approach from corporate health care companies seeking to do business with them. Still others say the practice management sector simply grew too fast.

Sandy Steever, editor of the Health Care M&A (Merger and Acquisition) Monthly, published by Irving Levin Asso-

"I think practice management as a sector for the most part is dead. There is a place for it in local markets, but I don't think it is a national phenomenon anymore."

-William C. Stewart, MD

ciates in Connecticut, says the need remains for the PPM industry. "But it is going to be much more chastened by the time it emerges. I think they grew too quickly and made too many promises, and you need a very focused business plan," he says.

Bill Appling, former re-

gional vice-president in Memphis for Nashville-based women's health PPM company MediSphere Health Partners, says "unwinding" from practice management is a national trend. A board member of the Medical Group Management Association, Appling is preparing a seminar to answer the question: "Is there life after the unwind?"

"There can be, but it sure can be expensive," Appling says. Fleet has assisted five physician practices in unwinding from these business relationships, which typically were contracted for 30 years. He says the cost of repurchasing the practice can range from \$30,000 for a solo practice to between \$1 million and \$2 million for a large, multi-location practice.

Several Tennessee physicians who have left practice management arrangements—or are in the midst of unwinding—say they have returned to more traditional methods of running their businesses.

Memphis internist William C. Stewart, MD, president of a four-member group, Internal Medicine Associates of Cordova, says he and his partners share business duties now. For example, one handles payroll, another handles accounts payable, another handles contract review. Dr. Stewart doesn't mind being back in charge of his business, but acknowledges that contract negotiation is an area of weakness for the group, and says they may use consulting assistance there. Getting out of the practice management deal cost his practice more than getting in did, Dr. Stewart says. "We are back to where we were before we got involved in practice management as far as revenue goes. It took us awhile before we got the AR

Leigh Ann Roman is a freelance writer based in West Tennessee.

(accounts receivable) in shape. It took a good 12 months before we got back into shape," Dr. Stewart says.

Dr. Stewart was on the board of directors of a locally run Memphis practice management company called Mid-South Practice Management, but when that company merged with a large Atlanta practice management company, the situation went downhill, he says. "Within six months, there was this huge drive to go public and they tried slicing and dicing to make us profitable here so we wouldn't be a drain on them going public," Dr. Stewart says. "The things they started to do are typical things you don't want to do when working with doctors, as far as cutting staff, and really harping on the collections process to the point of alienating some patients."

Dr. Stewart cites the slim margins for practice management in primary care. To be successful in that sector, a PPM company must have a good collections process, good management of accounts payable, and a long-range plan, he says. But it still can take several years to become profitable. Another problem with practice management is that physicians are very independent people by nature and training, and don't cotton to the corporate mentality, he says.

"I think practice management as a sector for the most part is dead," Dr. Stewart says. "There is a place for it in local markets, but I don't think it is a national phenomenon anymore."

Appling says that as physicians face declining reimbursement from insurance companies and increasing overhead costs, there is no doubt of the need for practice management. But "it almost has to be locally based because you just can't call the shots from a larger city. Health care is definitely a local business."

Nashville-based MediSphere Health Partners is in the process of leaving the Memphis market. The Women's Care Center, LLC, which represents three large obstetrics and gynecology practices in Memphis, is unwinding from MediSphere. Appling explains the exit this way: Physicians didn't feel they were receiving everything they should for their management fee, and plans for achieving an equity position in a health care facility did not come to fruition in the Memphis market. The practices involved in the Women's Care Center are the Ruch Clinic, Mid-South Ob-Gyn, and Gynecology and Obstetrics.

Henry P. Sullivant, MD, president of the Ruch Clinic and still a member of the board of MediSphere, says the unwind is amicable, and if the physicians had been able to put up their own professional office building, surgery center, or birthing center, the management expertise of MediSphere would have been extremely beneficial. But two factors made it nearly impossible for the physicians to establish their own facility: "The politics in this community are very difficult, given the large, well-established health care systems already in place." And the state requires certificate-of-need (CON)

approval for new health care facilities.

As it stands, the benefits of MediSphere's management at this time just don't justify the cost of the management fee, Dr. Sullivant says. But he does credit the company with assisting the three obstetric practices in forming the LLC, which will allow the groups to integrate some business functions. And he points to the company's success in other locations, non-CON states such as Arkansas and Oklahoma, where it is building freestanding women's hospitals with



Appling

physician practices. The Memphis LLC currently is looking for a practice administrator. "We're better business people much in part to the affiliation with management companies who have taught us a lot. I think our LLC knows what we're looking for as far as a lead management person."

The Memphis Children's Clinic, too, returned to a more traditional practice administrator type of management after unwinding from Atlanta-based Physicians Health Corp., the same group with which Dr. Stewart's practice was affiliated, says Robert W. Riikola, MD, a senior partner with the children's clinic. When the children's clinic entered the practice management arrangement, it joined with local Mid-South Practice Management, and Dr. Riikola acknowledges that the large practice needed some management guidance. "On their behalf, they were beneficial in pointing out some of the things we were doing improperly, and helped us have more a business plan in interfacing with insurance companies. But after the local PPM company merged with the Atlanta company, "it became a bit more impersonal." Now that the practice has returned to the management of three partners and an administrator, "I think we're a lot more comfortable with it," Dr. Riikola says.

Even in the best of scenarios, practice management is no easy task, Dr. Sullivant says. "Practice management can work if you can acknowledge the difficulties of bringing the (practice) cultures together and have in place policies that can deal with the subtleties of the varying cultures. To me, the real difficulty of practice management is the merging of physician cultures into one template for management. If you have difficulty appreciating the subtleties of each practice, you are doomed to a very difficult time in the practice management world, which is why so many practice management companies are seeing the process unwind."

HCFA/PRO Study a Benchmark, Not a Crisis Report:

TMA, THA & MSFMC Come Together to "Make Good Care Better"

Brenda Williams

"The data presented show that the health care Tennesseans receive certainly is of high quality; however, there's always room for improvement ... and TMA will work with hospitals and the PRO to improve in these areas, as well as others."

Don Alexander TMA CEO Shortly after a national study gave Tennessee a low grade in its overall treatment of Medicare patients, the Tennessee Medical Association and other state medical organizations responded to make sure the data were not being misinterpreted.

"There is no need for public concern over the quality of care received in our facilities and through Tennessee doctors," said TMA President Barrett F. Rosen, MD, in a public statement about the study, published Oct. 3, 2000 in the *Journal of the American Medical Association*.

Dr. Rosen said the Health Care Financing Administration (HCFA) study, conducted through peer review organizations (PRO), was a collection of benchmark measurements and should not be viewed as a crisis report. "The mission of this project is to begin work in areas where improvements can be made and measured," he continued. "Rest assured that the needle will move significantly and already has! This is the beginning of a quality improvement initiative."

Tennessee Hospital Association President Craig Becker issued a similar statement: "Tennessee hospitals can be proud of the high quality of care they currently provide to Medicare patients. We support the Health Care Financing Administration's efforts to improve care, and this study simply reflects the fact that hospitals have an opportunity to provide better care than they already provide."

Likewise, Minoj Jain, MD, vice-president of the Health Care Quality Improvement Program at the Mid-South Foundation for Medical Care (MSFMC), made assurances that Tennessee's Medicare patients generally receive good care, "but the data show that we can do better." He said the Memphis-based peer review/quality improvement organization, which provided the Tennessee data to the study, is already working with health care providers, including the TMA and THA, to "make good care better."

Tennessee 39th in Quality Study

The HCFA/PRO study looked at quality-of-care indicators in six areas that affect older patients the most: heart attack, stroke, heart failure, breast cancer, pneumonia, and diabetes. Using patient care information from 1997-98, researchers ranked all 50 states, Washington, DC, and Puerto Rico, based on how they adhered to quality standards and followed up with patients as recommended for each of the six medical problems.

For example, Tennessee ranked 7th in the country for prescribing blood thinners (warfarin) for patients with heart trouble, and 14th in giving annual flu shots. But Tennessee was rated poorly on other quality measures—51st in the appropriate use of ACE inhibitors for patients with heart failure, 49th in giving eye examinations to diabetic patients, 47th on doing biennial lipid profiles for diabetics, and 49th for making sure pneumonia patients received an initial dose of antibiotic within eight hours of hospital admission. Overall, the Volunteer State ranked 39th out of 52. (Complete rankings are available at www.tnproqio.com.)

TMA's same-day response to the study outlined some of the qualifying facts that may have affected Tennessee's performance, including patient compliance (patients do not always follow their doctors' recommendations), record-keeping (patient records do not always reflect what has been done), and insurance rates and rules (TennCare and other insurance companies may not cover the quality measures in every circumstance). At the same time, TMA officials tried to emphasize that patient safety is not in jeopardy, that Tennessee scored within the median range, and that the standard of care is high to begin with.

Brenda Williams is a freelance writer and owner of Public i Media in Nashville.

HCFA'S 6SOW BASELINE MEASUR	REMENTS FOI	R TENNESSEE
Topic/Measure	TN Percent	National Rank (50 states + DC, PR)
Acute Myocardial Infarction - Inpatient 1. Early administration of aspirin	82.9%	32nd out of 52 (31 were better, 20 were worse)
2. Aspirin at discharge	83.6%	33rd
Early administration of Beta Blocker	56.1%	41st
Beta Blocker at discharge	66.7%	39th
5. ACE Inhibitor at discharge for low LVEF	67.4%	36th
6. Smoking cessation counseling	43.8%	18th
Heart Failure - Inpatient		
LVEF Assessed	66.2%	23rd
Appropriate use of ACE Inhibitors in LVSD	50.0%	51st
Atrial Fibrillation - Inpatient Discharged on Warfarin	60.7%	7th
Discharged on Wahami	00.7 76	7 01
Stroke/TIA - Inpatient		
Antithrombotic prescribed at discharge	76.7%	44th
Avoidance of sublingual nifedipine	93.9%	30th
Pneumonia - Inpatient		
Received initial dose of antibiotic within 8 hours	78.5%	49th
2. Initial antibiotic consistent with current recommendations		17th
3. Blood cultures collected before initial dose of antibiotics	78.2%	44th
4. Screened for/given the influenza vaccine	10.7%	42nd
Screened for/given the pneumococcal vaccine	7.8%	43rd
Pneumonia - Outpatient		
Influenza vaccination (BRFSS data)	69.1%	14th
Pneumococcal vaccination (BRFSS data)	45.0%	29th
Dlabetes - Outpatient		
1. Annual HgbA _{1C}	65.5%	37th
2. Biennial eye examination	61.1%	49th
3. Biennial lipid profile	47.6%	47th
Breast Cancer - Outpatient		
Biennial mammography	52.8%	39th

TN Medical Groups Tackle Numbers

Weeks later, officials from TMA, THA, and MSFMC said they were already hard at work to improve the numbers.

TMA pledged to educate its members about the target protocol in each of the six measured areas through personal onsite education sessions, web-based training and information, promotion and review within the medical community, targeted written materials, and the sharing of best practices information. "The study shows there are some areas that we're not doing very well with, and others we're doing really well with," said Dr. Rosen. "The idea is to take this information and use it as a teaching tool to improve things, and to find ways to disseminate the information to physicians across the state, again in a nonthreatening way, to educate them as to what the standards ought to be."

THA's Becker added that the improvement cannot be made by a single provider, but will require a team effort. "Physicians must prescribe the appropriate treatment, prescriptions, services, and other activities," he said. "Hospitals must ensure that appropriate systems are in place to support the physicians' actions. Nurses and other professionals must make sure medical records accurately reflect the care that was provided. Patients also must follow through as providers have prescribed. In addition, insurance companies must reimburse for the appropriate treatment when it is performed."

Tennessee's PRO, the MSFMC, will be making the rounds to physicians' offices to facilitate a better understanding of the quality measures. "For doctors, we provide medical staff talks, we provide the service of giving them their Medicare volume profile-that's how many Medicare patients they're seeing-and we also make phone calls to the top admitters of patients with particular diagnoses to make them aware of their quality indicators," said Dr. Jain. Physicians may also be included in medical staff talks to be conducted at Tennessee hospitals over the next six to eight months.

The MSFMC will also be spreading the message that the HCFA/PRO study was not a one-time event, but

an ongoing challenge. "We try to improve the indicators to a certain degree, maybe 90% or 95%. Then when HCFA develops new indicators, we will begin to work on improving those," Dr. Jain explained. "We get reevaluated every three years. The way the cycle works, we are already in the reevaluation phase, so what we've got to do is get doctors to pay attention to those indicators."

Medical professionals should not be discouraged by the study results, he added, but use them as a baseline for building better treatment protocols. "I think they should look at it from the perspective that there is tremendous room for improvement, and this is the starting point," Dr. Jain said, indicating that the MSFMC has gotten some positive feedback from the medical community. "People are receptive and sensitive to the data, and they're recognizing that these are the areas we need to stress. They're actually glad that they are now aware that this is what is being looked at."

Improvement Takes Team Effort

Dr. Jain also agrees with the teamwork diagnosis offered by the leaders of TMA and THA. "This is a challenging task that we have in front of us, and it will require a collaborative effort between hospitals and physicians in order

to improve these grades," he said. "It won't happen within months, but it could certainly happen within years... but it will only happen if we put quality improvement as a priority in the care of patients."

TMA Chief Executive Officer Don Alexander was also confident that while we are not in a crisis, a little teamwork would go a long way toward improving care for the state's Medicare patients. "The data presented show that the health care Tennesseans receive certainly is of high quality; however, there's always room for improvement," he said. "TMA will work with hospitals and the PRO to improve in these areas, as well as others."

"The PRO, the Hospital Association, and TMA are go-

ing work together to try to promulgate some plans as to how to approach this and how to get the word out so physicians understand what they are expected to do to meet these standards," agreed Dr. Rosen. The goal, he said, is to view the study results as a benchmark for progress. "So when we come back in a year or two, we'll restudy it and find out we're doing things a lot better."

"This is a challenging task that we have in front of us, and it will require a collaborative effort between hospitals and physicians in order to improve these grades. It won't happen within months, but it could certainly happen within years . . . but it will only happen if we put quality improvement as a priority in the care of patients."

—Dr. Minoj Jain
Mid-South Foundation for Medical Care, Inc.

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Loss Prevention Case of the Month

Hazard of a New Patient

J. Kelley Avery, MD



Dr. Avery is a member of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

Case Report

A visitor from Florida came for care to the office of our colleagues. He entered the office of this family physician complaining of pain in the abdomen. He stated that he had experienced this kind of pain off and on for several years, and that he had been given a specific medication that he requested. He was ushered into an examination room for further history and a physical examination.

He was a 60-year-old man who had smoked an average of one pack of cigarettes a day for many years. His initial complaint was "another spell of gastritis." He told the physician that he had been nauseated and had vomited repeatedly during the previous night. His past history was not significant. His mother was still living. He was one of four sons, whose father had died at

about age 58 of a "heart attack," as had one brother at age 40.

He weighed 157 lb and his blood pressure was 130/82 mm Hg. There was no documentation of the examination of heart or chest. The note showed, "abd 0," and the patient pointed to the epigastric area as the site of his pain. During the examination he told the doctor that he had been given Tagamet before with good results. Tagamet 800 was prescribed before meals for a week, and he was told to return in three weeks for reexamination.

The next documentation relating to this case comes to us from the emergency room (ER) of the local hospital. "Respi-

ratory distress. S: 60 y/o w/m was brought to ER by wife in private vehicle. Patient found to be in acute respiratory distress. O: Skin-Cool, diaphoretic, cyanotic. Placed on 6 L O₂/ min with atrial fibrillation. IV was established and Lanoxin 0.25 mg given IV push. Unable to palpate radial pulse or obtain blood pressure reading. Dopamine drip was started at 30 cc/hr and increased to 55 cc/hr quickly. Another 0.25 mg Lanoxin given IV. O, was changed to 100% NRB at 12 L/ min. Still no blood pressure obtained. Attending notified and came. Patient was intubated by attending and Dobutrex added to Dopamine. Pupils were fixed and dilated at this point and never changed. Full CPR was instituted with epi. Lidocaine, and defibrillation. Patient never improved and was pronounced dead two hours after admission to ER." The EKG taken before and during his terminal event showed evidence of an acute anterior myocardial infarction. The laboratory tests done on admission and reported after death showed marked elevation of the cardiac enzymes supporting the discharge diagnosis.

His wife reported at that time that he had suffered a great deal the night before coming to the hospital. He had been nauseated and had vomited frequently. Shortly before the ambulance was called, the patient had become cyanotic, had complained of difficulty breathing, and became hard to arouse. In retrospect, the patient arrived at the ER in cardiogenic shock, and despite aggressive and appropriate treatment from the time he was admitted to the ER, he died. He had been symptomatic with his terminal illness for at least 72 hours before death. An autopsy was requested by the attending physician and permission was given. The findings were those of an acute anterior myocardial infarction produced by the occlusion of the left anterior descending branch of the left coronary artery.

A lawsuit was filed soon after the death of the patient charging the attending physician with "negligent failure to diagnose and treat." There was essentially no expert witness support for the attending physician. The documentation was extremely lacking as to the history and, according to the record, the physical examination on the patient's initial presentation to the attending physician was very brief and lacking in detail.

Loss Prevention Comments

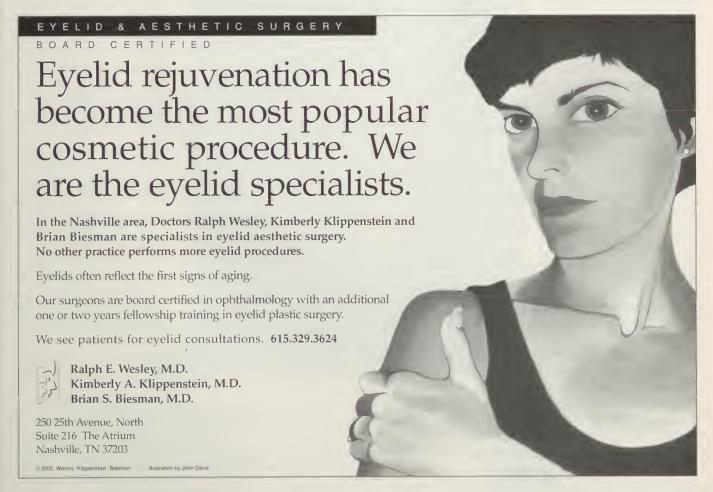
Again we come back to the basics of medical practice, the taking and recording of a good history, the careful consideration of all the elements of the physical examination in the differential diagnosis, basic laboratory and x-ray studies, and the development of an appropriate treatment plan. This colleague of ours could have been easily defended if the medical record had borne this out.

The family history alone in this man justified a full cardiac workup. The patient's father and one brother died at a relatively young age of a "heart attack." This vital risk factor was ignored as far as the record is concerned.

Abdominal pain above the umbilicus is not an unusual presenting complaint in a patient with coronary artery disease, angina, or impending infarction. Nausea and vomiting are frequently a part of the presenting picture. The history is missing a description of the character of the pain. If it had been recorded that the pain was of the type usually referred to as "heartburn," and if the history of previous attacks of

this type had been studied by negative x-ray examinations, one could easily have painted the picture of "gastritis." If the physical examination had shown tenderness or if there had been in the record a carefully documented examination of the chest and heart with negative findings, our colleague would have been on safer ground. None of the objective evidence needed to point away from the heart was present. It would be a safe bet that there was evidence of ischemia on the EKG at the time of the first visit if only one had been taken. Had the attending physician's index of suspicion for acute myocardial infarction been higher, perhaps the outcome would have been different. The entire framework of legal defense would have been logical and supportable. The likelihood of litigation would have been less, and the likelihood of loss much less.

It is easy to believe that this physician considered all the factors that have been mentioned. In such a case, there would have been a logical reason for conducting this man's case as he did. The critical element of the case is that, according to the record, we have no basis for these conjectures.



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Original Contribution

Treatment of Elderly Women With Urge Incontinence in Middle Tennessee: A Single Institution Practice-Based Study

David J. Grossklaus, MD; Jenny J. Franke, MD

Introduction

Urinary urgency and urinary urge incontinence (UUI) is a significant contributor to morbidity and decreased quality of life among elderly women. UUI is the involuntary loss of urine associated with a sudden strong desire to void,1 which can be caused either by spontaneous premature detrusor contraction (detrusor instability) or failure of the cerebral cortex to inhibit normal detrusor contractions (detrusor hyperactivity).2 Although its prevalence increases with age, incontinence never affects the majority of individuals.3 Detrusor instability accounts for between 40% and 70% of incontinence in elderly women who come to their physician with UUI,4 and is the second most common cause of UUI in all women.5 UUI affects 15% to 30% of elderly women residing at home, 33% of those women in acute care facilities, and up to 50% of those in nursing homes. The estimated cost of UUI

ABSTRACT

Introduction and Objectives: Urinary urge incontinence (UU1) is a major factor in reducing quality of life in elderly women. The treatment of UUI in the elderly population is complicated by comorbidities, polypharmacy, cost, and side effects. The purpose of this study was to examine our practice pattern in Middle Tennessee for the treatment of elderly women with UUI.

Methods: We retrospectively reviewed the medical records of all women over age 65 seen at our institution between January 1, 1998 and September 1, 1999 with an initial complaint of pure UUI. Diagnosis was based on history and physical examination by a single urologist (JJF). Initial treatment in all patients was medication as well as timed and double voids. Medication chosen was based on cost factors, co-morbidities, current medications, and outcome from previous treatment.

Results: Of 53 women ranging in age from 65-87 years of age (avg. 74.7) included in this study, 6/53 (11.3%) had a previous CVA, and 2/53 (3.7%) had grade 1-11 cystocelcs. Initial pharmacologic treatment included anticholinergic medication in 47 patients (88.6%), and either imipramine or topical estrogen alone in the remaining 11.4%. Of the anticholinergics, hyoscyamine time capsules were used in 29, tolterodine in 7, standard oxybutynin in 5, oxybutynin XL in 1, and a combination with imipramine in 5. Thirty-four of the 53 total patients (64.1%) discontinued their medications because of no improvement 14 (41.1%), dry mouth 9 (26.4%), other side effects 9 (26.4%), cost 1, and other reasons in the remaining 2 patients. Only 17 patients (32%) stated they were doing well on their initial medications; 11 of those (64.7%) were taking hyoscyamine time capsules. Upon subjective failure, 22/36 patients (61.1%) had their medications changed, while 14/36 (38.8%) pursued behavioral therapy without additional medications. Urodynamic studies were done in 12 patients who failed empiric medical treatment (22.6%).

Conclusions: Only 32% of elderly women treated medically for UU1 were satisfied and continued therapy in this patient population. One-fourth of elderly women failed empiric medical management of UU1 due to lack of efficacy, and one-third due to intolerable side effects. In this practice, hyoscyamine was continued more often than any other anticholinergic because of reasonable cost, efficacy, and side effect profile.

for the United States is over \$3 billion per year, and for the state of Tennessee it is estimated that over \$200 million will be spent on this disorder.3 The treatment of UUI includes behavioral. biofeedback, and pharmacologic methods. In elderly women the treatment requires consideration of multiple factors that are unique to a geriatric population. Previous studies have reported on the efficacy of each individual treatment in a research study situation. We performed an analysis in an individual practice in Middle Tennessee in an attempt to correlate practice patterns with treatment outcome for UUI in elderly women.

Materials and Methods

We performed a retrospective review of the medical records of all women over age 65 with an initial complaint of pure UUI seen at the female urology clinic at Vanderbilt University Medical Center between January

1, 1998 and September 1, 1999. Diagnosis was based on history and physical examination by a single attending urologist (JJF). Data obtained from the medical records included age, medical history, pertinent physical findings, previous treatment, outcome of treatment, new medications or treat-

From the Department of Urologic Surgery, Vanderbilt University School of Medicine, Nashville.

Reprint requests to VUMC Department of Urology, A1302 MCN, Nashville, TN 37232-2765 (Dr. Grossklaus).

TABLE 1

MEDICAL AND UROLOGIC HISTORY OF PATIENTS

Finding	Number of Patients	
Neurologic Disorder	6	
Transient ischemic attacks	2	
Cerebrovascular accident	4	
Pelvic Floor Abnormality	6	
Grade I-II cystocele	2	
Grade I rectocele	4	
Previous Surgery	6	
Pubovaginal sling	3	
Anterior colporrhaphy	1	
Stamey needle suspension	1	
Posterior repair	1	
Urologic Disorder	3	
Interstitial cystitis	2	
Nephrolithiasis	1	

ment initiated, and urodynamic data. When urodynamic evaluation was performed, it was done by the same attending physician with a five-channel urodynamics machine, including fluoroscopy. Treatment options were selected based on severity of symptoms, co-morbidities, cost, and patient wishes.

Results

A total of 53 patients fulfilled the criteria for inclusion in the study. The mean age was 74.7 (range 65-87). Pertinent historical findings among the patients in the study are listed in Table 1. One patient who had previous multidrug chemotherapy for breast cancer is currently off treatment and in remission.

Initial medications were hyoscyamine time capsules in 29 (54.7%), tolterodine (Detrol) in 7 (13.2%), oxybutynin in 5 (9.4%), imipramine in 5 (9.4%), a combination of an anticholinergic and imipramine in 5 (9.4%), oxybutynin extended release tablets (Ditropan XL) in 1 (1.8%), and topical estrogen cream in 1 (1.8%). Thirty-four of the 53 patients discontinued their medications within the 21-month period. The average follow-up was 11 months, and ranged from 1 to 21 months. Fourteen patients (41%) discontinued their medications for various reasons (Table 2). Of the 34 patients who stopped their medications, 21/34 (61.7%) stopped due to side effects. The percentage of the total population who stopped their medications because of side effects was thus 39.6% (21/53). Only 32% or 17/53 patients were subjectively doing well and did not change their medication. Of those who subjectively failed initial therapy, 12 underwent multichannel videourodynamic testing. Three of the 12 patients were referred to us specifically for urodynamic evaluation by community urologists after failure of previous treatments for UUI. Nine of the 12 failed our treatment and underwent urodynamic evaluation. The only pertinent urodynamic finding in these

TABLE 2
REASONS FOR DISCONTINUATION OF MEDICATION

Reason for Discontinuation	Number of Patients
No subjective improvement	14 (41.1%)
Dry mouth	9 (26.4%)
Nausea	2 (5.8%)
Confusion	1 (2.9%)
Constipation	1
Cost	1
Depression	1
Diarrhea	1
Didn't fill prescription	1
Dizziness	1
Urinary retention	1
Urinary tract infection	1
Worried about side effects	1

patients was detrusor instability. A certain number of patients in this study chose to try medication as second-line therapy after discontinuing their initial medication. Medication changes are listed in Table 3.

Discussion

The purpose of our study was to examine a clinical practice in Middle Tennessee to determine if the treatment for UUI in elderly women correlated with results from published research studies. We also wanted to determine if the side effects of medications in this population were equivalent to those reported in the literature where gender and age were not considered.

For a variety of reasons, UUI is more prevalent in elderly women than in other populations (Table 4). The prevalence of incontinence rates parallels increases in age due to difficulties with mentation, mobility, motivation, and manual dexterity.³ Age-associated changes in bladder function include decreased bladder capacity, shorter time between awareness of need to void, increased residual urine, decreased flow rate, decreased strength of pelvic floor muscles, and atrophic changes on the urethral lining and bladder trigone.²

Polypharmacy can also play a role in elderly UUI. Medications can have varying effects due to decreased renal clearance, reduced organ reserve, loss of carrier proteins in serum, and an increase in body fat-to-water ratio. Since medications such as diuretics, ACE inhibitors, sedatives and antidepressants prescribed for other medical conditions can affect the urinary tract, a thorough medication history is important in these patients.

In our study, all patients were treated with both timed and double voiding protocols, and a medication was added in an attempt to decrease incontinent episodes. Results showed that only 32% of our patients achieved success with the initial medical therapy. Reasons for treatment failure are listed in Table 2. Previously reported reasons for poor treatment effi-

TABLE 3
SECOND-LINE MEDICAL THERAPY FOLLOWING
INITIAL MEDICAL FAILURE

Medication	Number of Patients	
Tolterodine	6	
Hyoscyamine time capsules	5	
Oxybutynin	3	
Imipramine	3	
Ditropan XL	2	
Doxazosin	1	
Estrogen cream	1	
Hyoscyamine dosage change	1	
Urised	1	
Biofeedback	3	
Prompted voiding	3	
No additional treatment	3	

cacy include side effects of medications, poor compliance, lack of follow-up, cost, limited efficacy of drugs used, and effectiveness only as long as the placebo effect continues.⁵ Drug failure can also be due to an increase in fluid intake resulting from anticholinergic-induced xerostomia.³ Though medical therapy was discontinued due to cost in only one patient in this review, there is wide variation in the cost of medications used for UUI within our local area (Table 5).

In the treatment of UUI, up to 40% of women have required medication changes in previously reported studies. Reported cure rates have been as low as 12%. In one study 20% of women stopped taking medicines because of side effects and stated they would rather, "come to terms with their symptoms" than continue on medication. Our study showed that 41% of patients failed their initial treatment not due to side effects, but because the treatment provided no improvement in symptoms. Our study also showed that 64.1% of patients discontinued their medication, while only 32% were satisfied with their initial treatment.

The prevalence of adverse drug reactions and polypharmacy in the geriatric population has led some physicians to advocate medication only if patients first failed to respond to behavioral therapy, such as timed voiding, double voiding, or prompted voiding. Biofeedback for patients with UUI has been shown to have up to 85% efficacy. Though many patients showed clinical improvement without evidence of urodynamic changes, successful biofeedback in the elderly requires motivation, minimal cognitive impairment, and access or transportation to a biofeedback center with trained personnel. There have been no reported side effects of biofeedback,8 but there has been a documented decline in the effect of biofeedback over the long term as patients lose their compliance with the treatment.9 Behavioral treatment and habit training have been the most widely used treatment for institutionalized patients with UUI. Prompted or timed voiding has had good success with female nursing home resi-

TABLE 4
REASONS FOR UUI IN THE GERIATRIC POPULATION

Medical Conditions
Congestive heart failure
Diabetes insipidus
Diuretic use
Fecal impaction
Fluid overload
Polypharmacy
Psychological conditions
Syndrome of inappropriate anti-diuretic hormone secretion (SIADH)
Neurologic Lesions
Alzheimer's disease or other causes of dementia or delirium
Cerebral aneurysm
Cerebrovascular accidents
Multiple sclerosis
Parkinson's disease
Spinal cord injuries
Tumors
Urologic Disorders
Atrophic vulvovaginitis
Detrusor overactivity
Low bladder compliance
Transitional cell carcinoma
Urinary obstruction
Urinary tract infections

dents where the addition of medication is contraindicated or biofeedback is unavailable.8

The standard medical treatment of UUI has been the use of anticholinergic/antispasmodic drugs. Acetylcholine mediates detrusor contraction, thus anticholinergic medications may inhibit unwarranted detrusor contractions.4 The attraction to patients of drug therapy over behavioral treatment is that it requires little effort. 10 Anticholinergic drugs have been shown cystometrically to increase bladder capacity, thus reducing voiding frequency.11 Our results concur with previously reported studies that anticholinergic medications are most efficacious for the treatment of UUI, though in some studies only 18% of women were still taking anticholinergic medications six months after initial treatment, and up to 40% reported some side effects.5 Of the anticholinergic medications in our study, we found hyoscyamine time capsules to be effective and continued by patient choice for the longest period. Current anticholinergic medications lack selectivity for the urinary bladder, and may have profound effects on other organ systems; this may result in side effects that limit their usefulness. 12 The rates of adverse effects with oxybutynin have been reported to be as high as 73%.11 Newer pharmaceuticals such as Detrol and Ditropan XL were used in only small numbers in our study, primarily due to cost. Reported rates of side effects and drug withdrawal for these newer agents as well as improved efficacy have been reported.¹³ Atrophic urethritis can contribute to UUI, and treatment with topical estrogen cream can improve symptoms.4

The multifactorial nature of UUI lends itself to the combination of drug therapies. Combining medications can opti-

TABLE 5 COST OF ONE MONTH SUPPLY OF MEDICATION IN MIDDLE TENNESSEE*

Medication	Dose	No. of Tablets	Cost (\$)	Pharmacy
Hyoscyamine Time Caps Brand	0.375 mg QD	60	69.77 68.39 72.99	Vanderbilt Outpatient National Chain #1 National Chain #2
Generic			N.A. 28.59 28.29	Vanderbilt Outpatient National Chain #1 National Chain #2
Detrol	2mg BID	60	96.97 82.59 83.99	Vanderbilt Outpatient National Chain #1 National Chain #2
Oxybutynin (generic)	5mg TID	90	35.47 24.39 28.99	Vanderbilt Outpatient National Chain #1 National Chain #2
Imipramine (generic)	50mg QHS	30	12.55 8.55 12.85	Vanderbilt Outpatient National Chain #1 National Chain #2
Ditropan XL	5mg QD	30	61.20 75.49 79.59	Vanderbilt Outpatient National Chain #1 National Chain #2
Estrogen Cream (with applicator)	42.5 g tube	1	51.16 54.09 54.59	Vanderbilt Outpatient National Chain #1 National Chain #2

*Prices quoted by phone interview with pharmacists 12/21/99 with the outpatient pharmacy at our institution and with two national chain pharmacies from the closest branch to our institution.

mize clinical efficacy while minimizing side effects in patients who cannot tolerate a higher dosage of a single medication.⁷ Intolerability to one drug does not necessarily imply intolerability to another, even within the same class of medications. The availability of a spectrum of pharmacotherapeutic options reduces therapeutic failures and improves the success rate in the treatment of patients. 11 We found success with a combination of estrogen cream and either imipramine or an anticholinergic medication. Combinations of medications may help in relieving symptoms, but it does increase the cost of the medication.

The use of urodynamics to evaluate elderly women with a history of pure UUI is controversial. In all 12 cases the urodynamic evaluation did not identify other pathology except to confirm detrusor instability. Previously reported studies comparing men and women urodynamically have shown similar changes in bladder properties with aging.¹⁴ The question as to whether or not urodynamics is helpful in the treatment of pure UUI is as yet unanswered, and was not within

the scope of this study. Some researchers have reported that urodynamic evaluation of patients with pure UUI is not warranted because the information it provides does not improve the cure rate seen with behavioral, biofeedback, or medical therapy.5 Others have argued that urodynamics is more important in the elderly because of the multiple etiologies of UUI in this population. 15 Our current approach is to perform urodynamic evaluation on elderly individuals with UUI who have neurologic diseases (other than cerebrovascular disease), and with elevated residual urine volumes.

Conclusion

The treatment of UUI in the elderly is complicated. Our study corroborates previously reported studies that side effects with anticholinergic medications are frequent, but unlike other studies, our study of women over age 65 found a very high rate of discontinuation due to side effects. The choice of treatment for UUI by both the physician and patient must include information regarding efficacy, side effects, cost, and patient compliance. In this practice-based study of women 65 and older residing in Middle Tennessee, patients remained on hyoscyamine time capsules because of their adequate efficacy with acceptable side effects and cost.

References

- 1. Blavis JG, Romanzi LJ, Heritz DM: Urinary incontinence: pathophysiology, evaluation, treatment overview, and nonsurgical management, in Walsh PC, Retik AB, Vaughan ED Jr, et al (eds): Campbell's Urology, ed 7. Philadelphia, W.B. Saunders Co., vol 11, chap 30, pp 1007-1043, 1998
 - 2. Mold JW: Pharmacotherapy of urinary incontinence. Am Fam Phys 54:673, 1996.
 3. Resnick NM, Yalla SV: Geriatric incontinence and voiding dysfunction, in Walsh PC, Retik
- AB, Vaughan ED Jr, et al (eds): Campbell's Urology, ed 7. Philadelphia, W.B. Saunders Co., vol 11, chap 31, pp 1044-1058, 1998.
- Chutka DS, Takahashi PY: Urinary incontinence in the elderly. *Drugs* 56:587, 1998.
 Kelleher CJ, Cardozo LD, Khullar V, et al: A medium term analysis of the subjective efficacy of treatment for women with detrusor instability and low bladder compliance. Br J Ob/Gyn 104:988, 1997.
- 6. Wagg A, Malone-Lee J: The management of urinary incontinence in the elderly. BJU International 82(suppl 1):11, 1998
- 7. Goode PS, Burgio KL: Pharmacologic treatment of lower urinary tract dysfunction in geriatric patients. Am J Med Sci 314:262, 1997
- 8. Larsen Burgio K, Whitehead WE, Engel BT: Urinary incontinence in the elderly. Ann Intern Med 104:507, 1985 9. Lagro-Janssen T, Van Weel C: Long-term effect of treatment of female incontinence in
- general practice. Br J Gen Prac 48:1735, 1998.
- 10. Burgio KL, Locher JL, Goode PS, et al: Behavioral vs. drug treatment for urge urinary incontinence in older women. JAMA 280:1995, 1998.
- 11. Madersbacher H, Halaska M, Voigt R, et al: A placebo-controlled, multicentre study comparing the tolerability and efficacy of propiverine and oxybutynin in patients with urgency and urge incontinence. *BJU International* 84:646, 1999.
- 12. Andersson KE, Appell R, Cardozo LD, et al: The pharmacological treatment of urinary incontinence. BJU International 84:923, 1999
- 13. Gleason DM, Susset J, White C, et al: Evaluation of a new once-daily formulation of oxybutynin for the treatment of urinary urge incontinence. Urology 54:420, 1999.
- 14. Madersbacher S, Pycha A, Schatzl G, et al: The aging lower urinary tract: a comparative urodynamic study of men and women. Urology 51:206, 1998
- 15. O'Donnell PD: Special considerations in elderly individuals with urinary incontinence. Urology 51(suppl 2A):20, 1998.



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Department of Health Report

Certification of Death

Bruce P. Levy, MD

Most physicians do not like to think about the possibility of the death of their patients. We are trained to combat death and disease, but are not trained to deal with death itself. We are then called upon to complete death certificates with little or no formal instruction on how to complete them and why it is important to do so.

A properly completed death certificate is vitally (pun intended) important. It is a permanent record of the death of an individual. The document is proof of death, and can be used as evidence in a court. The statistical data developed from death certificates are used to identify public health problems and to allocate finite government resources to address them. These data can be used to study medical problems within specific populations and to evaluate the success or failure of medical therapy. Therefore, the proper completion of a death certificate serves not only the deceased's family, but also the public health of the community in general.

There are approximately 4,300 deaths per month in Tennessee. In about 400 of those deaths (9.3%), the physician is contacted to provide more information regarding the death or to clarify what was listed on the death certificate. This effort represents a significant waste of valuable time for both physicians and vital record employees.

There is a wealth of information regarding completion of the death certificate. The National Center for Health Statistics at the Centers for Disease Control and Prevention have instructional pamphlets on death certification, which can be obtained from the CDC or our state's vital records department. The Web site for the National Association of Medical Examiners, http://www.theNAME.org, contains a tutorial for completion of death certificates.

The physician provides the cause(s) and manner of death on a death certificate, and it represents the physician's opinion. This opinion is based upon his training and medical knowledge, as well as the medical history, physical symptoms, diagnostic tests, and autopsy results that are available on the deceased. One does not have to be absolutely sure that the person died of these causes; rather, it represents a reasonable medical diagnosis.

From the Tennessee Department of Health, Nashville. Dr. Levy is the Chief Medical Examiner for Tennessee.

There is often confusion regarding the various definitions of the cause of death. In general, the cause of death is the etiologically specific disease or injury responsible for initiating the lethal sequence of events. The *underlying or proximate cause of death* is that which, in a natural and continuous sequence unbroken by any efficient intervening cause, produces the fatality, and without which the end result would not have occurred. *Immediate causes of death* are the sequelae of the underlying cause, and precede death. There may be one or more immediate causes, and they may occur over a prolonged interval, but none absolves the underlying cause of its ultimate responsibility.

For example, a man sustains a transabdominal gunshot wound with perforation of the colon. In spite of treatment, over a period of three months he develops peritonitis, septicemia, disseminated intravascular coagulation, hepatic and renal failure, bronchopneumonia, and the adult respiratory distress syndrome. The gunshot wound is still the underlying or proximate cause of death.

In contrast, the *mechanism of death* is the altered physiology and biochemistry whereby the cause exerts its lethal effect. The mechanism of death lacks etiologic specificity, and is unacceptable as a substitute for the underlying cause of death. Examples of mechanisms of death include congestive heart failure, cardiac arrhythmia, asphyxia, sepsis, exsanguination, and organ failure. "Cardiorespiratory arrest" is a description of being dead and is not a cause of death.

In completing the cause of death statement(s) in Part I, the physician should provide only one cause on each line. Line (a) represents the immediate cause of death, or the final disease, injury or complication leading to death. It is the only line on the cause of death statement that must be completed. Lines (b), (c), and (d) represent conditions that gave rise to the line above it in a linear temporal sequence. The lowest line completed is the underlying or proximate cause of death.

Another area representing great confusion for physicians is Part II, or "Other Significant Conditions." This section should be used for those diseases or injuries that contribute to death but are unrelated to the cause provided in the first part of the death certification. Frequently this category is used as a repository for medically interesting or curious findings that do not make a pathophysiologic contribution to death.

[We all face common pitfalls in our completion of the death certificate. These include failure to state the underlying cause of death, scrambling of the underlying and immediate cause of death, substituting mechanisms of death for the underlying cause of death and listing extraneous data in the section for other significant conditions.]

The manner of death is a classification system that provides an explanation as to how the cause of death arose. The five allowable categories are natural, accidental, homicide, suicide, and "could not be determined." All deaths must be classified as to manner. It is an objective assessment and should not represent the personal values of the certifying physician. It can be quite challenging at times to categorize a death into one of these five categories.

Natural deaths should be reserved for those deaths in which the death is due exclusively (100%) to disease. If any violent or unnatural act contributes in any way to the death, it is not a natural death. Any death that is not natural should alert you to contact your County Medical Examiner for consultation and referral.

Accidental is an unnatural death arising from an inadvertent chance happening. Motor vehicle fatalities are classified as accidental death, even if an intoxicated driver or reckless driving causes the death. Classifying the death as accidental does not in any way prevent successful prosecution in these cases. Acute drug intoxications are also classified as accidents since the intent of the deceased was not to end their life, but to "enjoy" an altered state of mind. By contrast, natural disease complications of substance abuse are generally classified as natural deaths. For example, an acute ethanol poisoning is an accident while cirrhosis from chronic ethanol abuse is natural.

Homicide is a death resulting from the direct actions of another. As in all manners of death, it is a medicolegal administrative ruling rather than a legal finding. Homicide does not equal murder. In other words, while all murders are homicides, not all homicides are murders. This can be controversial in self-defense cases or law enforcement-related deaths.

Suicides are deaths caused by self-inflicted injury. There could be either explicit or implicit intent to harm oneself. Evidence for this could be in the form of a suicide note, previous history of depression with or without prior suicide attempts, or physical evidence such as a contact-range gunshot wound to the head.

"Could not be determined" should be reserved for those rare cases in which investigation has been unable to categorize the death. It should not be used as a mechanism to avoid a controversial but clear manner of death. In all of these cases, the County Medical Examiner and law enforcement officials should be consulted, and an autopsy should be performed.

Certification of death is an important, yet not very complicated, responsibility of each physician. This article hopefully will assist you with this issue. In the next article I will provide common problems in death certification as examples for training purposes.

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Vanderbilt Morning Report

Severe Hypertension in a Young Woman

Case Report

A 37-year-old white woman with a history of hypertension felt well until the day of admission when she awoke with a severe headache accompanied by substernal chest pain, nausea, and vomiting. Though she drove to work that morning, on arrival she was too weak to exit her car, so she proceeded to a local emergency department. On examination she had a blood pressure of 248/124 mm Hg. She was treated with intravenous nitroglycerin, after which her blood pressure decreased to 172/101 mm Hg, and her chest pain resolved. An electrocardiogram was normal. She was transferred to Vanderbilt University Hospital for further management.

Her past medical history showed poorly controlled hypertension treated with verapamil, but she was noncompliant. She smoked one pack of cigarettes per day and drank a moderate amount of alcohol. She had a family history of hypertension, coronary artery disease, and peripheral vascular disease.

On arrival at Vanderbilt, the patient continued to have a moderate headache and nausea. Her temperature was 98.8°F, blood pressure 182/98 mm Hg in both arms, pulse 82/min, and respiratory rate 22/min. Ocular fundi were normal, without papilledema or hemorrhage. No carotid bruits were noted, her cardiac examination was unremarkable, and her lungs were clear to auscultation. Her abdomen was non-tender, but auscultation revealed a systolic bruit on the right side of the mid abdomen. Bilateral femoral bruits were noted, and peripheral pulses were strong in all extremities. There was no edema, and her neurologic examination was normal. Her blood counts and electrolytes were normal, and her serum creatinine was 0.7 mg/dl (normal 0.7 to 1.5). An electrocardiogram was also normal.

Despite medical therapy, the patient continued to have paroxysms of hypertension, with diastolic pressures frequently above 100 mm Hg. Further studies investigating possible secondary causes of hypertension were performed, and in light of her abdominal bruit, a renal artery duplex study was obtained. It showed delayed acceleration and increased

velocity in the right renal artery, suggestive of renal artery stenosis, which a renal arteriogram confirmed demonstrating a focal stenosis of the distal right renal artery with post-stenotic dilatation. After a percutaneous transluminal angioplasty was performed, the patient had no complications and was discharged home taking verapamil 250 mg SR and clonidine 0.1 mg twice a day, with a blood pressure of 140/84 mm Hg. She has remained normotensive on therapy.

Discussion

Renovascular hypertension (RVH) is defined as "a specific pathogenesis of hypertension wherein a stenosis or multiple stenoses of the renal artery reduces renal parenchymal blood flow sufficiently to provoke sustained renal production of renin." RVH is the most common cause of secondary hypertension. Recent data suggest a prevalence of RVH in the general population of up to 5%.²

The stenoses of RVH are due to atherosclerosis in 60% to 70% of the cases, and fibromuscular dysplasia in the remainder. Indications for evaluating individuals for RVH include (1) onset of hypertension at extremes of age; (2) recently accelerated hypertension; (3) hypertension resistant to conventional therapy; (4) systolic blood pressures above 180 mm Hg or diastolic pressures over 110 mm Hg; (5) findings suggestive of a secondary cause; or (6) an abdominal bruit. Other etiologies of secondary hypertension include Cushing's syndrome, hyperaldosteronism, neuroendocrinopathies, such as pheochromocytoma or carcinoid syndrome, and cocaine abuse.

A renal arteriogram remains the standard for diagnosing RVH, because it produces high-quality images, and because revascularization can often be accomplished at the time of the diagnostic arteriogram. However, angiography is invasive, and can provoke contrast-induced nephrotoxicity (with reported rates as high as 7%), and athero-embolic events.²

Noninvasive testing can be utilized to diagnose RVH, with less risk to patients. The captopril renogram is a nuclear medicine test with a sensitivity as high as 93% and a specificity as high as 95% for RVH.⁴ Duplex ultrasound is a reasonable screening test, but is highly operator-dependent, with reported sensitivities of 40% to 90% and specificities of 72% to 100%.⁴ Recently, some institutions have adopted magnetic resonance angiographic (MRA) imaging as the initial test of choice

Presented by Lynda Hemann, MD, second-year medical resident, Anderson Spickard, III, MD, MS, assistant professor of medicine, and David Aronoff, MD, Hugh J. Morgan chief medical resident, Vanderbilt Medical Center, Nashville. Edited by Jason Morrow, MD.

because of the high quality of images and minimal risk to the patient. This test is particularly attractive for patients with kidney disease, who are at high risk for contrast nephropathy. In general, however, when the suspicion for RVH is high, it has been widely accepted to proceed with renal angiography as the initial test.

The diagnosis of RVH can be considered a "retrospective diagnosis," as a reduction of blood pressure should be documented following revascularization. At one time, surgical revascularization was the only available treatment for RVH,5 but angioplasty, with or without stent placement, has now become the treatment of choice.⁵ A recent study in patients with atherosclerotic renal artery stenosis, however, suggests that medical antihypertensive therapy alone is a reasonable option for patients with RVH.5 Although the study excluded patients with fibromuscular dysplasia, and did not use stents in the angioplasty-treated group, the results suggest that in patients whose hypertension persists despite maximal medical therapy, or who have progressive stenotic renovascular disease, balloon angioplasty should be used.5

Goals of medical management include blood pressure control and stabilization of renal function. Success rates with angioplasty depend on the location of the lesion. Unilateral and medial stenoses have the most favorable outcomes. In addition, obstruction due to fibromuscular dysplasia respond better to angioplasty than atherosclerotic lesions.4 Unfortunately, up to one-third of patients may show only minimal improvement in blood pressure after a successful angioplasty. Additionally, patent lesions can restenose at any time. Therefore, it is important for the primary care physician to understand that surgical intervention may not be curative, and close monitoring of the patient for life will be required.

References

- Little C: Renovascular hypertension. AJN 100:46-51, 2000.
 Carmichael P, Carmichael AR: Atherosclerotic renal artery stenosis: from diagnosis to treatment. Postgrad Med J 75:527-536, 1999
- 3. Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure and the National High Blood Pressure Education Program Coordinating Committee: The sixth report of the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure. Arch Intern Med 157:2413-2446, 1997.
- 4. Dustan HP: Renal artery disease and hypertension. Med Clin North Am 81:1199-1212, 1997.
 5. Brigit CVJ, Krijnen P, et al: The effect of balloon angioplasty on hypertension in atherosclerotic renal-artery stenosis. N Engl J Med 342:1007-1014, 2000

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TMA Alliance Report

"A Safe School Summit" September 18, 2000 Chattanooga, Tennessee

• "Children don't naturally kill; they learn it from violence in the home and, pervasively, from violent entertainment in television, movies, and interactive video games."

• Every time a child plays an interactive video game, he is learning the exact same conditioned reflex skills as a soldier or police officer in training."

These are quotes from Lieutenant Colonel Dave Grossman, a retired military psychologist and one of the world's leading experts on the causes of youth violence. Lt. Col. Grossman, a retired Army Ranger who taught psychology at West Point Military Academy, was nominated for a Pulitzer Prize for his book, "The Psychological Cost of Learning to Kill in War and Society." Lt. Col. Grossman has appeared on major news programs such as "60 Minutes," "The Today Show," "Larry King Live," and "Hardball."

On September 18, the Chattanooga Hamilton County Medical Alliance and the Medical Foundation of Chattanooga collaborated with Hamilton County Schools and Congressman Zach Wamp's office to host and fund "A Safe School Summit" in Chattanooga. The morning sessionattended by principals, assistant principals, guidance counselors, school resource officers, law enforcement officers, and community leaders—addressed the causes of violent behavior in young people. Through the dedicated efforts of Congressman Wamp, a team of U. S. Secret Service agents presented their research study findings that have examined school shootings over the past several years. Their presentation, which has been featured on "60 Minutes," presents the Secret Service's study of recent shootings, starting from each incident and working backward to the development of the original idea. This presentation in Chattanooga was among the first in the country!

The luncheon speaker featured Lt. Col. Dave Grossman, who passionately presented his scientific data linking TV, movies, and video games to violent crime. His findings, however, are not new. They were originally reported in the 1972 Surgeon General's report on media violence, which was released the same year as the Surgeon General's report on the links between tobacco and cancer. "The casual relationship between the media and violence is more clearly demonstrated in scientific studies than is the connection between smoking and cancer," says Grossman. "When television is introduced, the violent assault rate skyrockets and the murder rate doubles in 15 years."

Lt. Col.Grossman indicated that in the Paducah, Kentucky school shootings, the Paducah shooter shot eight times and hit eight people, three of them in the head. This young boy, however, had no training or experience with a handgun. "Military and law enforcement officers can't believe it. The average policeman expects two hits with every five shots at seven yards." Grossman noted that a hunter's natural instinct is to keep shooting until the target falls. Video games train players to shoot quickly, to shoot once, and to gain extra points for

headshots. The student in Kentucky's only experience shooting a gun came from playing video games. His goal was to kill one person, a girl who had hurt his feelings. When asked why he continued to shoot other students, his answer was: "It just seemed like I had momentum."

Lt. Col. Grossman's evening presentation at a local Chattanooga school was open to the entire community. To encourage parents' attendance, the Medical Alliance partnered with BlueCross BlueShield, who generously offered a \$1,000 award to the school in Hamilton County with the highest percentage of parents attending. The Alliance also worked with their volunteers as well many other organizations in Chattanooga to publicize this event.

The feedback that the Chattanooga Hamilton County Medical Alliance has received in sponsoring and planning this event has been fantastic! Lt. Col. Grossman's presentation affected everyone attending and clearly enhanced our community's awareness and understanding of many factors that have contributed to violent actions of our youth.

(Lt. Col. Dave Grossman's Web site address is at www.killology.com)

Julie Fisher, Immediate Past Co-President Chattanooga-Hamilton County Medical Alliance

New Members

Tennessee Medicine takes this opportunity to welcome these new members to the Tennessee Medical Association.

Benton Humphreys County Medical Society Agustin V. Vitualla, MD, Camden

Chattanooga-Hamilton County Medical Society

David M. Alvarez, MD, Chattanooga
Thomas P. Brien, MD, Chattanooga
Christopher W. Chase, MD, Chattanooga
Stanton B. Davis, MD, Chattanooga
Emily J. Douglas, MD, Chattanooga
Rodney M. Durham, MD, Chattanooga
James E. Fleischli, MD, Chattanooga
Andrea Galloway, MD, Chattanooga
James M. Osborn, MD, Chattanooga
Bryant E. Poole, MD, Chattanooga
Charles A. Portera Jr, MD, Chattanooga
Naushaba H. Rizvi, MD, Chattanooga
Russell L. Walker, MD, Chattanooga

Sullivan County Medical Society
Teresa M. Salazar-Catron, MD, Kingsport

In Memoriam

Michel Haddad, MD, age 71. Died September 8, 2000. Graduate of University of St. Joseph (Beirut). Member of Sullivan County Medical Society.

Anthony P. Jerome, MD, age 81. Died September 26, 2000. Graduate of Case Western Reserve University School of Medicine. Member of Memphis-Shelby County Medical Society.

Clarence C. Lushbaugh, MD, age 84. Died October 13, 2000. Graduate of University of Chicago Pritzker School of Medicine. Member of Roane-Anderson County Medical Society.

Luis C. Prieto Jr., MD, age 79. Died September 30, 2000. Graduate of Tulane University School of Medicine. Member of Memphis-Shelby County Medical Society.

Paul Ernest Slaton, MD, age 68. Died October 14, 2000. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

CME Opportunities

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME. Inquiries regarding application for accreditation as a sponsor of CME should be made in writing to: CME Department, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

Vanderbilt University Medical Center

Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Feb 2-10 23rd Annual Sisson International Head and Neck Workshop—Vail, CO

For more information contact the Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232; Tel. (615) 322-4030.

University of Tennessee

Continuing Education Schedule

Memphis

	Wentpitts	
Feb 19-22	13th Annual Update in Ob/Gyn—Grand Cayman Is-	
	land, BWI	
Mar 10-17	Current Issues in Ob/Gyn—Snowmass, CO	
Mar 19-23	34th Annual Review Course for the Family Practitioner	
Mar 22-24	Symposium on Critical Care and Emergency Medi-	
	cine—Hot Springs, AR	
Mar 24-25	Advanced Life Support in Obstetrics	
June 6-10	General Surgery	
Knoxville		
Mar 6-8	Advanced Life Support Course	
Mar 12-13	Pediatric Advanced Life Support	
Apr 21	TN Society of Pathologists Spring Meeting	
May 2-5	24th Annual Family Practice Update—Gatlinburg	

June 4-5 17th Annual Alzheimer's Symposium—Gatlinburg
June 14-17 46th Annual Great Smoky Mountains Pediatric Seminar—Gatlinburg
June 18-19 Pediatric Advanced Life Support

John W. Whittington Lectureship

June 20-22 Advanced Cardiac Life Support

Chattanooga

Feb 8-13 International 14th Annual Clinical Medicine Update—Maui, Hawaii

Feb 11-15 International 2nd Annual Emergency Medicine Symposium—Maui, Hawaii

For more information contact Mr. Mike Spikes, Office of CME, University of Tennessee, 956 Court Ave., Memphis, TN 38163; Tel. (901) 448-5547.

AMA Physician Recognition Awards

The following TMA members qualified for the AMA Physician's Recognition Award during September, 2000. This list, supplied by the AMA, does not include members who reside in other states. Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Each application for the PRA must also verify participation in Category 2 CME activities.

Thomas M. Crenshaw, MD, Humboldt Samir Al Kabbani, MD, Knoxville Charles R. Kaelin, MD, Old Hickory Alvin H. Meyer, MD, Hermitage Lawrence S. Nagle, MD, Chattanooga Richard M. Penny Jr., MD, Bristol Raymond W. Rhear, MD, Alamo Steven A. Sanders, MD, Knoxville David G. Stanley, MD, Oak Ridge Ronald E. Turk, MD, Greeneville James M. Turnbull, MD, Kingsport

The following TMA member qualified for the PRA in May and was omitted him from the published list. We apologize for this error.

Reinaldo A. Olaechea, MD, Crossville

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SEND RESUME OR CONTACT

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Fax: (615) 231-5396

James G. Armstrong, Superintendent Arlington Developmental Center 11293 Memphis-Arlington Road Arlington, TN 38220-5022 Telephone: (901) 745-7575 Fax: (901) 7457272

Henry C. Meece, Superintendent Greene Valley Developmental Center P.O. Box 910 Greeneville, TN 37744-0910 Telephone: (423) 787-6568

Fax: (423) 787-6574

Fax: (615) 902-7541

Joe Carobene, Superintendent Middle TN Mental Health Institute 221 Stewarts Ferry Pike Nashville, TN 37214 Telephone: (615) 902-7532 Lee Thomas, Superintemdemt Lakeshore Mental Health Institute 5908 Lyons View Pike Knoxville, TN 37919 Telephone: (865) 584-1561 Fax: (865) 450-5203

Russell Vatter, Superintendent Moccasin Bend Mental Health Institute 100 Moccasin Bend Road Chattanooga, TN 37402 Telephone: (423) 785-2271 Fax: (423) 785-3333

Elizabeth Littlefield, Superintendent Western Mental Health Institute Highway 64 West Bolivar, TN 38074 Telephone: (901) 658-5141 Fax: (901) 658-2783

Tom Sellars, Superintendent Memphis Mental Health Institute 865 Poplar Avenue Memphis, TN 38174-0966 Telephone: (901) 524-1200 Fax: (901) 543-6055

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All orders must be submitted in writing by the 25th of the 2nd month preceding the desired month of publication, and will be subject to approval. No phone orders will be accepted. Payment must accompany order. Each listing will be removed after its first publication unless otherwise instructed. Fee-for-service agency advertisements are not accepted in this section.

Mail order with payment to Tennessee Medicine, PO Box 120909, 2301 21st Ave. South, Nashville, TN 37212-0909. Phone (615) 385-2100.

PHYSICIANS WANTED

FAMILY PHYSICIAN or MEDICINE-PEDIATRIC PHYSICIAN needed in Crossville, Tennessee, for multispecialty group. No obstetrics required. Approximately three call nights per month. Group is replete with family-oriented physicians in a family-oriented community. Cumberland Medical Center Hospital is listed in top 100 hospitals in the nation. Contact Doug Carpenter, MD, FAAFP, at (931) 484-5141 or FAX CV to (931) 484-5620.

GREATER KNOXVILLE, TENNESSEE—HOSPITALIST- Internal Medicine Opportunity. Team Health is seeking BC/BE physicians in IM for a full-time opportunity with a Knoxville area hospitalist group available September 1, 2000. Located in the foothills of the Smoky Mountains, Knoxville is home to The University of Tennessee and Women's Basketball Hall of Fame. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call, For more information, call Laurie Cordova at (800) 909-8366, ext. 3526 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

FRANKLIN, TENNESSEE—Internal Medicine Opportunity. Vanderbilt Health Services, Franklin, an off-campus multispecialty practice owned by Vanderbilt University, is seeking a fourth BC/BE internist for full-time practice. Located in a beautiful area that offers high quality of life, excellent schools, shopping, recreational, and entertainment opportunities. Compensation includes a full range of benefits, including college tuition assistance for children. Resume/CV may be faxed to Administrator at (615) 791-7286 or e-mailed in MS Word format to Michael.Goodwin@mcmail.vanderbilt.edu. Sorry, no J-1 opportunities available.

TENNESSEE

Eight-hospital system in western Tennessee seeks staff physicians who are Board Certified in Emergency Medicine or residency trained in a Primary Care specialty. Annual ED volumes average 8,500 per year. Independent contractor status, NO NON-COMPETE COVENANTS.

Please contact Bernadette Steckel, PhyAmerica Physician Services, Inc., at 800-949-2151 or fax CV to 419-861-8019.

ATHENS, TENNESSEE—Southeastern Emergency Physicians, an affiliate of Team Health, has one Emergency Department opportunity in Athens for a physician who is BC/BP in EM or BC/BE in IM or FP. Facility has an annual ED volume of 16,500. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. Located halfway between Knoxville and Chattanooga, Athens is home to Tennessee Wesleyan College. A plethora of recreational events are offered on the nearby Ocoee River where the 1996 Summer Olympic white water events convened. For more information, please call Laurie Cordova at (800) 909-8366, ext. 5626 or e-mail laurie_cordova@teamhealth.com. Sorry, no J-1 opportunities available.

KNOXVILLE, TENNESSEE—Southeastern Emergency Physicians, a Team Health affiliate, has several clinical and directorship opportunities in the greater Knoxville, TN, area for EM, IM/Peds, or FP physicians with Emergency Medicine experience. These facilities have annual ED patient volumes ranging from 30,000 to 45,000. Knoxville is home to The University of Tennessee, Women's Basketball Hall of Fame, and annual Dogwood Arts Festival. Team Health offers competitive compensation, paid malpractice insurance, and flexible scheduling with no on-call. For more information, call Laurie Cordova at (800) 909-8366, ext. 5626. Sorry, no J-1 opportunities available.

OAK RIDGE, TENNESSEE—Emergency Physician. A full-time ED opportunity exists for a physician BC/BP in EM or BC/BE in a primary care specialty with EM experience. Facility has a high volume and acuity with multilayered physician staffing. Located 15 minutes from Knoxville, Oak Ridge offers excellent schools, superb quality of life, and easy access to many lakes and recreational amenities. Opportunity offers competitive compensation, paid malpractice insurance, equitable scheduling, and no call. Please call (865) 481-1922 or fax your CV to Jim Henry, MD, FACEP, c/o Michele Disney, at (865) 481-1532.

OPPORTUNITIES IN TENNESSEE

- Southeast of Nashville: Board Certified/Board Prepared in Emergency Medicine or residency trained Primary Care physicians needed to associate with 17,000 annual volume ED.
- Middle Tennessee: Seeking residency-trained Primary Care physicians for emergency departments with volumes ranging from 11,000-13,000. Located 80 miles south of Nashville and 20 miles north of Huntsville, AL.

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Please contact Melynda Hykes, PhyAmerica Physician Services, Inc., at 800-949-2151 or fax CV to 419-861-8019.



Emergency Coverage Corporation, an affiliate of Team Health, has full- and part-time Emergency Department opportunities in Ellijay, Fort Oglethorpe and Thomson, Georgia; Danville, Kentucky; and Crossville, Knoxville and Morristown, Tennessee. We are seeking physicians who are BC/BP in EM or BC/BE in IM or FP and who will reside in the community they serve. ED experience with ATLS and ACLS certifications required.

Emergency Coverage Corporation provides flexible schedules, competitive compensation and paid malpractice insurance.

For more information, fax your CV to (865) 693-4064 or call Ann Lane at

1-800-577-7707

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Find the Right Practice Opportunity in Tennessee with Team Health



Southeastern Emergency Physicians, a Knoxville, Tennessee-based affiliate of Team Health, currently has full- and part-time Hospitalist, Emergency Medicine and Pediatric opportunities in Chattanooga, Knoxville, Memphis and Nashville.

Team Health provides competitive compensation, paid malpractice insurance, continuing medical education and career growth opportunities.



For more information, contact Laurie Cordova

1-800-909-8366

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Sorry, no J-1 opportunities available.

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References—References should be limited to 20 for major communications and 10 for case reports. All references must be cited in the text in numerically consecutive order, not alphabetically. Personal communications and unpublished data should be included only within the text. The following data should be typed on a separate sheet at the end of the paper: names of first three authors followed by et al, complete title of article cited, name of journal abbreviated according to *Index Medicus*, volume number, first and last pages, and year of publication. Example: Olsen JH, Boice JE, Seersholm N, et al: Cancer in parents of children with cancer. *N Engl J Med* 333:1594-1599, 1995.

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